

# International Journal of Urban Management and Energy Sustainability (JUMES)

Homepage: <http://www.ijumes.com>



## CASE STUDY RESEARCH PAPER

### Evaluation of Social Effects Indexes of Intervention in Urban Worn-Out Fabrics from a Sociological Perspective with emphasizes on Social, Cultural and Structural Factors (Sirous, Bazarche and Abdol Abad Neighborhoods of Tehran city, Iran)

Seyed Mousa Raeisi<sup>1</sup>

<sup>1</sup> Department of Humanities, Technical and Vocational University, Tehran, Iran

#### ARTICLE INFO

##### Article History:

Received 2022-07-09

Revised 2022-10-15

Accepted 2022-12-20

##### Keywords:

Economic-social function, neighborhood, social cohesion, social infrastructures, sociological perspectives, worn-out urban fabrics

#### ABSTRACT

Interventions in urban worn-out fabrics from a sociological perspective engage in redefining public and private spaces to strengthen the relationship between citizens, space, and social trust, potentially fostering a sense of belonging, clarifying social boundaries. The aim of this research is to examine the three components in evaluating the type of interventions in worn-out urban fabric from a sociological perspective. The type of research in this study is descriptive-analytical and the research paradigm is interpretive. It is also considered qualitative research. The data collection method is documentary and library and is carried out using field sampling. The type of objective is applied and the development of concepts will also be used in the research text. First, the basic concepts related to the concept of dilapidated texture and urban textures are examined, and then, according to the socio-structural approach, the focus is on three structural, procedural and content components in dealing with the challenges of the research in three neighborhoods as case studies contains Sirous, Bazarcheh and Abdol Abad in Tehran city. Next, using the questionnaire method, 20 questions were randomly measured from 60 residents according to the Cochran formula and the results of the study were entered into the SPSS software. Considering the results obtained, the reliability and validity of the questionnaire will also be examined and validated by relevant tests. The findings show that in the Sirous neighborhood, the structural-social and semantic-cultural indices with an average score of 177 and 186, as well as the Bazzarcheh neighborhood with an average score of 216 in the social-justice index, had a better situation after the interventions, and the results indicate the direct effect of all three components in the sociological study of the interventions.

DOI: [110.22034/IJUMES.2024.711844](https://doi.org/10.22034/IJUMES.2024.711844)

Running Title: *The Intervention in Urban Worn-Out Fabrics from a Sociological Perspective with emphasizes on Social, Cultural and Structural Factors*



NUMBER OF REFERENCES

30



NUMBER OF FIGURES

04



NUMBER OF TABLES

14

\*Corresponding Author:

Email: [smraeisi@tvu.ac.ir](mailto:smraeisi@tvu.ac.ir)

Phone: +982166494919

ORCID: <https://orcid.org/0009-0004-8734-0928>

## INTRODUCTION

Interventions in urban worn-out fabrics from a sociological perspective engage in redefining public and private spaces to strengthen the relationship between citizens, space, and social trust, potentially fostering a sense of belonging, clarifying social boundaries, and increasing neighborhood collaboration, which can enhance social cohesion and neighborhood power balance; however, the design and implementation of these interventions can reproduce class inequalities if priorities do not shift toward more accessible areas or if participation is limited to more influential groups (Andalib, 2007; Coleman, 1988). In this sense, interventions may either recalibrate social fabric toward more inclusive interaction or reproduce entrenched hierarchies depending on who is at the table and where decisions sit (Klinenberg, 2018; Sandercock, 1998). From a functionalist viewpoint, interventions in worn-out urban fabrics can reduce social lag and dysfunction while restoring neighborhood economic-social functions; by renewing public spaces, opportunities for local markets, co-working spaces, and shared workplaces emerge, not only boosting employment but also reinforcing neighborhood identity and collective responsibility (Lund & Buikslott, 2016). Yet, this process may fail to address chronic poverty if policies emphasize physical redevelopment over deep community participation and social integration (Fainstein, 2020). Spatial changes resulting from interventions can reshape the meanings and symbols of urban spaces, leading to representations of “good” or “inappropriate” fit for worn-out fabrics; these symbolic shifts can enhance security experiences but may also generate insecurity and symbolic rifts between longstanding minority residents and other groups, depending on how spaces are interpreted and who is perceived as legitimate users. Consequently, everyday experiences of city life and social interactions evolve over time, shaping social inequalities and patterns of mobility (Lees, 2008). From the perspective of social capital, interventions can either strengthen or

weaken social ties; shared spaces, cultural venues, and effective social services can build trust and cooperation across diverse social groups, but this effect sustains only when decision-making is fair and participation is broad and ongoing (Harvey, 2009; Izadi and Jalili, 2010). If participation remains limited to neighborhood organizations or if certain groups’ representatives dominate, there is a risk of reproducing limited forms of participation and segmentation (Portes, 1998). Fairness considerations indicate that interventions in worn-out urban fabrics can facilitate the redistributive flow of resources, opportunities, and public services; however, unequal resource distribution across neighborhoods can exacerbate social inequalities and erode trust in government, especially when decisions lack transparency and fail to reflect residents’ real needs; participatory, data-driven approaches are essential to achieve spatial justice in a sustainable manner (Harvey, 2009; Massey, 1993). From this vantage point, community-driven and evidence-based strategies are crucial to identify local needs and embed justice into the fabric of urban interventions (Sennett, 2000). On the cultural front, interventions can either valorize local cultural practices and neighborhood identity or neglect local narratives and force homogenized design templates; incorporating local values, crafts, urban arts, and neighborhood events to revitalize pride and belonging can lead to culturally rooted community renewal and broader resident participation, whereas ignoring local voices or imposing soulless design standards can induce a sense of cultural dislocation and reduce collaboration (Sandercock, 2003; Lefebvre, 1991).

## MATERIALS AND METHODS

Institutional perspectives emphasize how governance arrangements shape the sustainability of social effects; physical improvements without durable institutional mechanisms for maintenance, crisis response, and daily management may yield short-lived gains, whereas strong neighborhood institutions, transparent account-

ability, and models of civic–state social capital-ism are necessary for enduring impact (Healey, 1998; Sennett, 2000). Gender and racial equity considerations highlight that interventions may disproportionately affect women, people with disabilities, and immigrant groups in terms of access to public spaces and economic and educational opportunities tied to neighborhood renewal, necessitating inclusive design that advances equity and counters structural discrimination (Waters, 2012; Crenshaw, 1991). Finally, the co-variation between local policy and everyday behavior suggests that interventions can foster new social routines such as heightened mutual aid in middle spaces like small parks, neighborhood plazas, and shared work areas that enable new forms of cooperation, resident decision-making, and perceived safety over time, provided these spaces are accessible to all resident groups and are maintained consistently (Jacobs, 1961; Gehl, 2010). Ultimately, evaluating the social effects of interventions in worn-out urban fabrics requires a multi-method framework that integrates qualitative and quantitative data to capture economic opportunity, social relations, neighborhood governance, and everyday urban experience, while emphasizing ongoing participation in implementation, monitoring, and revision to strengthen local capac-

ities, build trust in local government, improve quality of life for residents, and advance social justice in urban contexts (Marshall, 1998; Lefebvre, 1991). (Tab. 1)

*Methodology*

The type of research in this study is descriptive-analytical and the research paradigm is interpretive. It is also considered qualitative research. The data collection method is documentary and library and is carried out using field sampling. The type of objective is applied and the development of concepts will also be used in the research text. First, the basic concepts related to the concept of dilapidated texture and urban textures are examined, and then, according to the socio-structural approach, the focus is on three structural, procedural and content components in dealing with the challenges of the research in three neighborhoods as case studies contains Sirous, Bazarcheh and Abdol Abad in Tehran city. Next, using the questionnaire method, 20 questions were randomly measured from 60 residents according to the Cochran formula and the results of the study were entered into the SPSS software. Considering the results obtained, the reliability and validity of the questionnaire will also be examined and validated by relevant tests.

**Table 1:** Social Impact Factors in Interventions of worn-out urban fabrics in Neighborhoods with a Sociological Approach with emphasizes on Social, Cultural and Structural Factors

Factor	Type of Factor	Description	Core Concepts	References
Redefinition of public and private spaces	Social-structural	Interventions redefine how spaces are used and perceived, potentially strengthening ties between citizens and the urban environment.	Social cohesion, place attachment, spatial boundaries	Putnam (2000); Coleman (1988)
Symbolic meanings and security perceptions	Cultural-symbolic	Changes in space meanings can affect perceived safety and social trust among residents, potentially widening divides.	Symbolic power, trust, security	Eisman & Smith (2014); Low (2000); Lees (2008)
Gender and racial equity considerations	Social-justice	Interventions may impact women, disabled, and immigrant groups differently; inclusive design is essential.	Equity, intersectionality, accessibility	Waters (2012); Crenshaw (1991)

## DISCUSSION AND FINDINGS

*Case Study: Tehran worn-out urban fabrics (Sirous, Bazzarcheh and Abdol Abad Neighborhoods)*

The three neighborhoods of Sirous, Bazzarcheh, and Abdol Abad in Tehran are among the worn-out neighborhoods with a historical history and a large presence of local residents, all three of which are located in the central and southern regions of Tehran. Sirous neighborhood is located within District 12 of Tehran Municipality and near Tehran Grand Bazaar, and is connected to the heart of the old city with pedestrian access and public transportation lines, including metro stations and buses. Bazzarcheh is located in a commercial-residential area located in Districts 12 of the municipality, and is characterized by narrow alleys and mixed public spaces, as well as access to local markets and urban service spaces. Abdol Abad is also located in District 19 and neighboring districts and is known for its old residential texture, low-rise buildings, and open spaces. It has experienced extensive developments due to urban regeneration and renovation projects for worn-out neighborhoods. Regarding the proportion of dilapidated structures, Sirous, Bazzarcheh, and Abdol Abad are all identified as areas with a significant percentage of dilapidated structures

due to the density of old construction, low-level access to public services in some areas, and the presence of old building structures. (Fig. 1)

*Evaluation of the main research indexes*

It is necessary to explain that, given the qualitative nature of the research method, the type of scoring for each criterion in each case sample is done according to the Likert scale structure, so that each criterion ultimately has an average score between 1 and 5. Accordingly, the demographic statistics related to the questionnaire method include the following, so that among the people who were selected to respond, 51 percent of the respondents were men and 49 percent were women, and in terms of their age group, the largest group is over 25 years old.

*Social-structural index assessment*

The Structural-Social Indicator serves as a core lens for understanding the social frame of deterioration in urban fabrics; it primarily addresses institutional structures, the organization of public services, and the reproduction of social opportunities at the neighborhood and city levels. In the Iranian context, the effective function of this indicator requires attention to how infrastructure and access to essential services (e.g., transportation, public spaces,

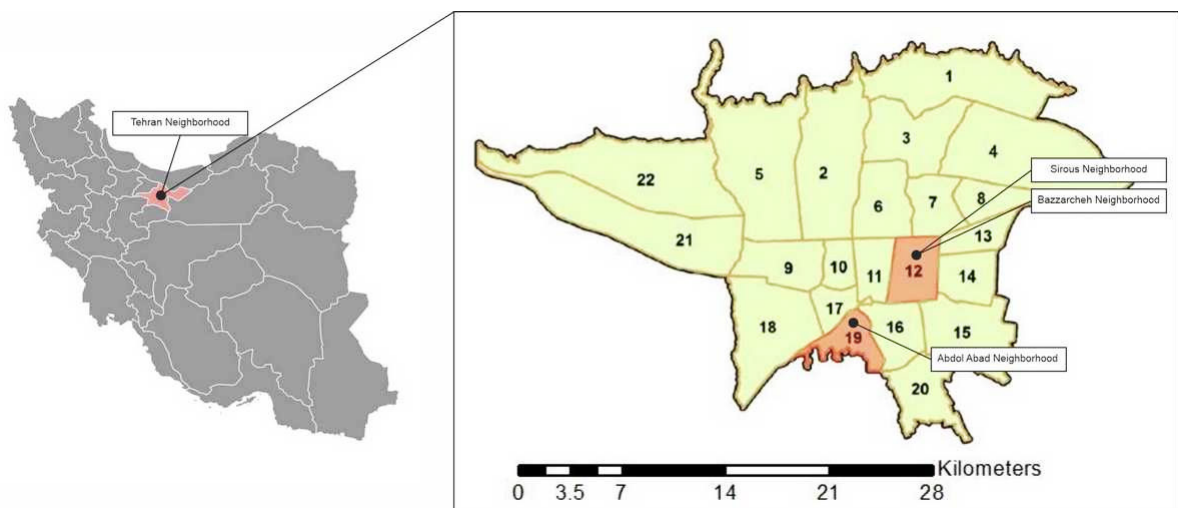


Figure 1: Geographical area of the three studied neighborhoods in Tehran

education, and health services) are distributed, as unequal provisioning can either mitigate or exacerbate neighborhood-level disparities, especially in distressed areas facing housing, employment, and service-delivery crises. The indicator captures a set of structural dynamics from a sociological standpoint that can function as a basis for evaluating interventions and their social outcomes, illustrating how redevelopment or housing policies exert broader effects on social relations, trust, and civic participation. Mid-text reference: (Hosseinzadeh et al., 2020). Within this indicator, the intensity and space of resource access for different social groups become crucial. In other words, the triad of justice in the distribution of space, opportunities, and local controls can reconfigure power relations in distressed neighborhoods. From the viewpoint of Iranian urban studies, neighborhood-level socio-economic stratification and interactions among social groups can influence decisions related to the redesign of worn fabrics, directly impacting trust in local institutions and individuals' sense of belonging. Consequently, the Structural-Social Indicator should be capable of addressing questions about equal access to public spaces, participation in redesign projects, and the inclusion of low-income group representatives in decision-making processes. Mid-text reference: (Ebrahimi, 2021).

A key dimension of this indicator is the role of social networks and everyday social relations in strengthening or undermining local capabilities. In distressed urban settings, informal networks among neighbors, mutual-aid initiatives, and local institutions such as neighborhood councils can function as primary channels for resource and information distribution. These channels foster the formation and reinforcement of social-structural capital and can enhance adaptability and local governance in response to urban interventions. In an Iranian context, cross-cultural and transnational linkages, whether constrained or enhanced, can accelerate or delay transformative processes, particularly when

cultural and structural considerations intersect. Mid-text reference: (Babaei et al., 2018). From a Structural-Social perspective, the efficacy of improvements in distressed fabrics depends on the existence of managerial infrastructures and continuous evaluation systems. The indicator should demonstrate how public and non-governmental organizations coordinate to monitor and manage change effectively. For Iran, clear strategic directions regarding target areas, evaluation criteria, and community feedback are essential for ensuring that interventions align with the social-cultural fabric and are sustainable. In this regard, the Structural-Social Indicator can act as a tool to gauge the presence or absence of such coordination and the durability of government-neighborhood linkages. Mid-text reference: (Ziyari et al., 2018). Ultimately, the Structural-Social Indicator should be designed with a multi-dimensional and integrated approach to capture the effects of interventions in worn urban fabrics from structural-social, everyday-experience, and spatial-justice angles. The use of both qualitative and quantitative data, alongside descriptive analytics and policy recommendations, can help create an actionable analytic-operational framework that more accurately reflects Iranian local contexts. The indicator can underpin neighborhood survey tools and ongoing monitoring instruments to improve future interventions with respect to cultural-social differences, social coexistence, and access to urban resources. Mid-text reference: (Mesgaran Kermani et al., 2022). (Tab. 2 and 3) (Fig. 2)

#### *Semantic-cultural index assessment*

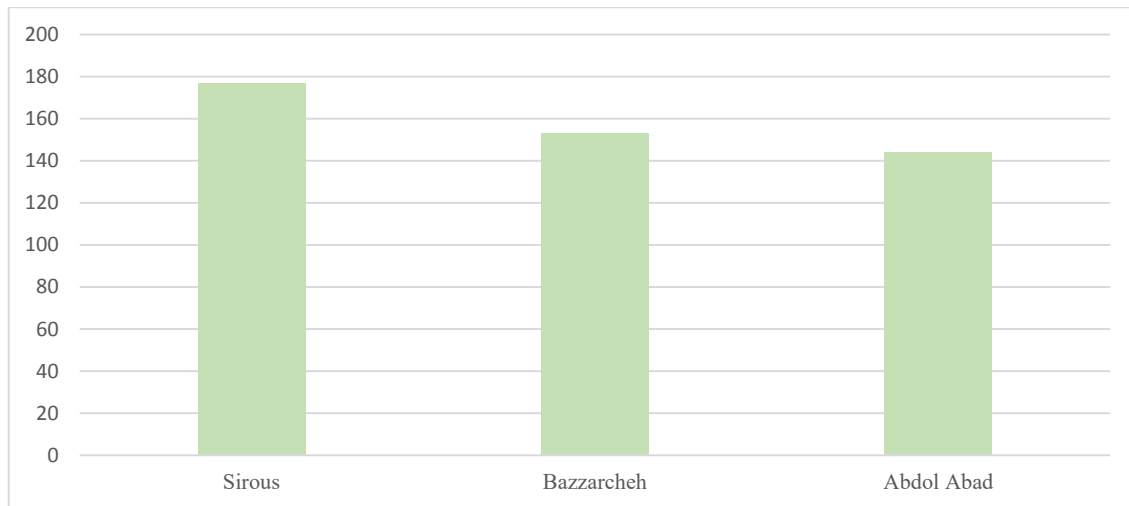
The Semantic-Cultural Indicator serves as a core lens for understanding how shared meanings, cultural practices, and symbolic norms shape residents' responses to urban interventions in worn-out fabrics. In the Iranian context, this indicator highlights how cultural identity, traditions, and everyday cultural expressions influence acceptance, engagement, and legitimacy of redevelopment efforts. It also captures how narratives around heritage, memory of places,

Table 2: Social-structural index assessment questionnaire

Number	Question	Question Type	Scale
1	I feel that I have equal access to city services such as transportation and public spaces.	Access to urban resources / Spatial equity	Likert
2	My trust in neighborhood institutions to respond to public problems is appropriate.	Trust in local institutions	Likert
3	Employment and educational opportunities in my neighborhood are provided relatively equally for all age groups.	Opportunity equality	Likert
4	Because the re-design rules for the worn fabric are clear, my participation in decision-making is beneficial.	Transparency and decision-making participation	Likert
5	The neighborhood's public space is safe and usable for all family members.	Safety and access to public spaces	Likert
6	Mutual aid networks and neighborly ties help me and my family cope with neighborhood changes.	Social-structural capital	Likert
7	Representation of low-income groups at neighborhood decision-making meetings is sufficient.	Representation of low-income groups	Likert
8	Information and news related to redevelopment projects are sufficiently available to me.	Access to project information	Likert
9	Human and non-monetary resources (e.g., volunteering and community collaborations) to manage projects are adequately available to me.	Community resources / Participation	Likert
10	The government-neighborhood linkage in the decision-making process is consistently and effectively coordinated.	Government-neighborhood coordination	Likert
11	In my neighborhood, opportunities to use public spaces (parks, pedestrian routes) exist for different age groups.	Spatial access for age groups	Likert
12	Citizen feedback is regularly collected through official channels and improvements are implemented.	Feedback and responsiveness	Likert
13	Decisions related to redevelopment are transparently understandable for everyone.	Persuasive transparency	Likert
14	Participation in neighborhood projects strengthens my connection to the community and colleagues.	Sense of belonging / Social participation	Likert
15	Resource distribution (e.g., space, services) across neighborhoods is carried out fairly.	Spatial justice across neighborhoods	Likert
16	Existence of managerial infrastructures and continuous evaluation systems supports interventions.	Project management efficiency	Likert
17	Project information is presented in simple, understandable language for me.	Accessibility of information (plain language)	Likert
18	Project implementers involve residents in the design and execution.	Resident participation in implementation	Likert
19	Changes in the worn fabric contribute to improved social coexistence in my neighborhood.	Impact on social cohesion	Likert
20	I feel that redevelopment preserves and strengthens the neighborhood's culture and local values.	Preservation and strengthening of cultural identity	Likert

Table 3: Social-structural index assessment Questionnaire evaluation results

Index	Neighborhood	Question Count	Very High (5)	High (4)	Medium (3)	Low (2)	Very Low (1)	Total / Weighted Score	Average Score
Structural-Social	Sirous	60	6	9	21	18	6	177	156.99
	Bazaarcheh	60	3	6	24	15	12	153	
	Abdal Abad	60	3	6	24	12	15	144	



**Figure 2:** Frequency chart of participants' responses to socio-structural index questions

and perceived authenticity affect residents' willingness to participate in design processes and to adopt new spatial arrangements. This dimension helps explain why well-intended interventions may succeed or fail depending on alignment with local meanings and values, thereby linking culture to social outcomes of urban rejuvenation. Mid-text reference: (Habib, 1998 and Khan Ahmادتloo, 1999). A key aspect of this indicator is the role of cultural infrastructure—norms, rituals, and symbolic artifacts that organize social life in neighborhoods. In Iran, linguistic practices, religious observances, and culturally specific public spaces (e.g., courtyards, bazaars, and communal gatherings) shape how people experience and evaluate public interventions. The semantic layer also encompasses perceptions of space as a stage for social identity, belonging, and status, which can influence who gets heard in consultation processes and whose cultural preferences guide project priorities. Mid-text reference: (Jeddi, Farzaneh, 2021). Meaning-making processes in distressed urban contexts are tightly interwoven with social memory and continuity. Residents may reference historical trajectories of their neighborhoods, linking past deprivation or prosperity to present expectations from interventions. In Iran, collective memory around

place, family networks, and urban form can condition acceptance of new designs or relocation plans, and may generate resistance if changes are viewed as erasing cultural signatures. The indicator thus examines how interventions resonate with cultural memory and how heritage considerations are integrated into policy and design decisions. Mid-text reference: (Amiri & Dehghani, 2022, McDonald et al., 2009). Language, discourse, and media representation play a crucial role in shaping attitudes toward urban renewal. The Semantic-Cultural Indicator analyzes how narratives surrounding “modernization,” “revitalization,” or “preservation” circulate among residents, officials, and civil society, and how these frames influence expectations and legitimacy of the M<sub>i</sub> (intervention). In Iran, media portrayals and public discourse can either mobilize broad participation or reinforce hesitation and skepticism, depending on whether cultural legitimacy is conveyed and whether local voices are foregrounded in communication strategies. Mid-text reference: (Topchi, 2010, Tallen, 2013). Ultimately, the Semantic-Cultural Indicator should be integrated with the Structural-Social and the Social-Justice dimensions to capture the interplay between meaning, culture, and equity in interventions. A mixed-methods

approach—combining qualitative inquiries into values, symbols, and narratives with quantitative assessments of participation and acceptance—can produce a holistic understanding of how cultural factors mediate the social effects of urban rejuvenation. This integrated perspective helps tailor interventions to local cultural contexts, enhancing acceptance, continuity, and sustainable social impact in Iranian cities. Mid-text reference. (Tab. 4 and 5) (Fig. 3)

**Table 4:** Semantic-cultural index assessment questionnaire

Number	Question	Question Type	Response Scale
1	The meaning of the redevelopment in my neighborhood aligns with our local cultural values.	Cultural alignment / Meaningfulness	Likert
2	Cultural heritage features of the area are preserved in the redevelopment plans.	Heritage preservation	Likert
3	Residents' narratives and memories are considered in design processes.	Local narratives / memory inclusion	Likert
4	Public spaces reflect everyday cultural practices (gatherings, rituals) in a meaningful way.	Cultural representation in space	Likert
5	Language and communication about projects are clear and culturally respectful.	Cultural communication	Likert
6	The concept of "modernization" used in the project respects local identities.	Cultural framing of modernization	Likert
7	Local traditions are integrated into the spatial organization of the neighborhood.	Tradition integration in space	Likert
8	Media messages about the redevelopment reflect cultural sensitivity and authenticity.	Media representation	Likert
9	Residents feel that the project honors historical places and stories.	Respect for local history	Likert
10	Cultural symbols and motifs important to the community are retained in new designs.	Preservation of cultural symbols	Likert
11	Perceived threats to cultural identity due to redevelopment are adequately addressed.	Cultural identity protection	Likert
12	Public meetings provide space for cultural expression and community voice.	Cultural expression in forums	Likert
13	The project supports inter-generational cultural exchange (young and old).	Intergenerational cultural exchange	Likert
14	Residents trust that planners understand and value local cultural practices.	Trust in cultural understanding	Likert
15	Cultural events and activities are integrated into the implementation timeline.	Integration of cultural events	Likert
16	The design respects religious and ceremonial spaces important to the community.	Respect for religious/ceremonial spaces	Likert
17	Information about the project uses accessible language that resonates with residents' cultural context.	Culturally appropriate communication	Likert
18	Residents participate in co-creation processes that reflect cultural preferences.	Co-creation aligned with culture	Likert
19	Perceived alignment between cultural values and housing/ space allocation is high.	Cultural-value alignment with allocation	Likert
20	Overall, the cultural integrity of the community is preserved and strengthened through redevelopment.	Cultural integrity preservation	Likert

Table 5: Semantic-cultural index assessment Questionnaire evaluation results

Index	Neighborhood	Question Count	Very High (5)	High (4)	Medium (3)	Low (2)	Very Low (1)	Total / Weighted Score	Average Score
Semantic-cultural	Sirous	60	6	15	24	9	6	186	171.99
	Bazaarcheh	60	9	9	24	15	3	186	
	Abdal Abad	60	6	9	15	18	12	159	

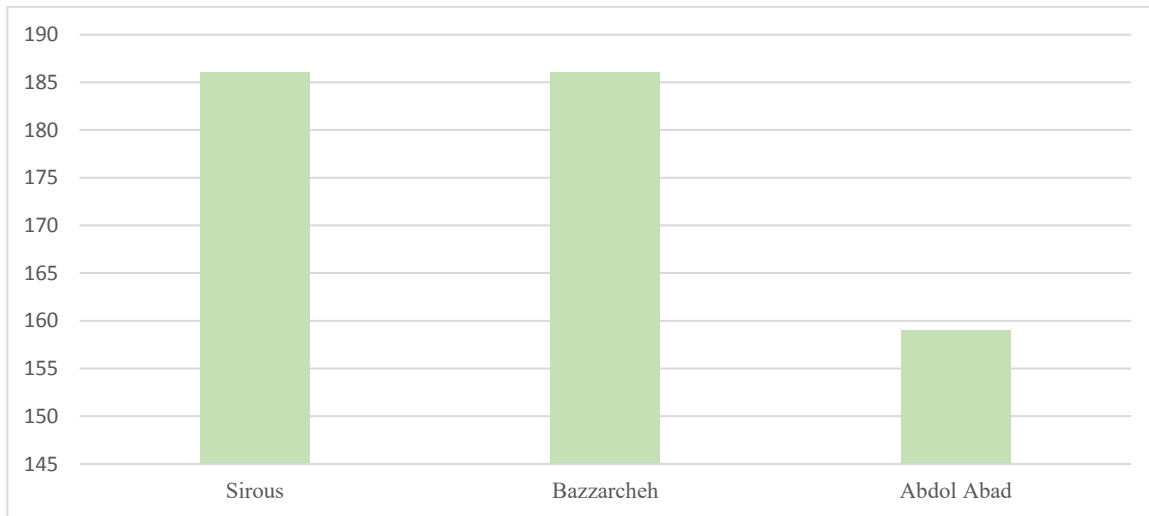


Figure 3: Frequency chart of participants' responses to semantic-cultural index questions

*Social-justice index assessment*

The Social-Justice Indicator serves as a central lens for assessing how interventions in distressed urban fabrics distribute benefits and burdens across different social groups. In the Iranian context, this indicator highlights questions of equity in access to housing, services, and public goods, as well as fairness in the planning process. It emphasizes the distributional outcomes of redevelopment policies and how these outcomes affect vulnerable populations, such as low-income households, migrants, and informal workers. The indicator also foregrounds notions of procedural justice—participation, transparency, and accountability—in decision-making processes. Mid-text reference: (Bruno et al., 2012). A key dimension of this indicator is the evaluation of power dynamics and participatory processes. It examines who has a voice in planning, whose interests are prioritized, and how power asym-

metries shape the design and implementation of interventions. In Iran, where local governance structures and community organizations vary across cities, the indicator calls for inclusive consultation, culturally appropriate engagement modalities, and mechanisms to prevent capture by vested interests. Mid-text reference: (Slavica et al., 2010). The social-justice dimension also encompasses access to urban resources—transport, green spaces, health services, education, and safety—across different neighborhoods and social groups. The indicator seeks to ensure that improvements in worn fabrics do not exacerbate spatial inequality but instead promote more equitable distribution of amenities and opportunities. In the Iranian setting, contextual factors such as informal settlements, tenure security, and localized economic activity influence how justice is realized in practice. Mid-text reference: (Wagner, 2011). An essential aspect

of this indicator is accountability and monitoring. The indicator promotes the establishment of measurable targets, transparent reporting, and independent evaluation to track progress toward equity goals. In Iran, this involves clear criteria for success, community feedback loops, and adaptive management to respond to emerging inequities during redevelopment. Mid-text reference: (Poty et al., 2014). Ultimately, the Social-Justice Indicator should be integrated with structural-social, semantic-cultural, and spatial-justice dimensions to form a comprehensive framework for understanding how interventions

affect fairness, social inclusion, and civic trust. A mixed-methods approach—combining quantitative indicators of equality with qualitative insights into experiences of marginalized groups—can provide a holistic view of justice outcomes and guide more equitable urban rejuvenation. This integrated perspective aims to ensure that interventions promote social cohesion, reduce disparities, and strengthen the legitimacy of urban governance in Iranian contexts. Mid-text reference: (Homer et al., 2015). (Tab. 6 and 7) (Fig. 4)

Table 6: Social-justice index assessment questionnaire

Number	Question	Question Type	Scale
1	The allocation of housing and public services in my area is fair across different social groups.	Equity in access / Resource distribution	Likert
2	I feel that residents have a genuine opportunity to participate in redevelopment decisions.	Participatory justice / Participation opportunities	Likert
3	Public consultation processes are transparent and understandable.	Procedural transparency	Likert
4	Local authorities consider the needs of vulnerable populations (low-income, migrants, informal workers) in planning.	Inclusion of vulnerable groups	Likert
5	There is equal access to transportation, parks, and essential facilities across neighborhoods.	Spatial equity / Access to amenities	Likert
6	The voice of minority or marginalized groups is heard in public meetings.	Representation of marginalized groups	Likert
7	Data and information about redevelopment plans are disseminated in clear and accessible language.	Communication accessibility	Likert
8	Oversight mechanisms exist to prevent favoritism or corruption in project implementation.	Accountability / Anti-corruption	Likert
9	Housing tenure security is improved in a way that benefits long-term residents fairly.	Tenure security fairness	Likert
10	The project design respects the cultural and social needs of different communities within the area.	Cultural/ social sensitivity in design	Likert
11	Public safety and crime prevention measures are distributed equitably across neighborhoods.	Safety equity	Likert
12	Support services (job training, social services) are accessible to residents regardless of income or background.	Access to support services	Likert
13	There is clear accountability for meeting equity targets in redevelopment progress reports.	Accountability to equity goals	Likert
14	Community organizations have meaningful opportunities to collaborate on project planning.	Civic collaboration	Likert
15	The project minimizes displacement risk for current residents.	Displacement risk management	Likert
16	There is fair distribution of public space (parks, plazas) between different neighborhoods.	Public space equity	Likert

Number	Question	Question Type	Scale
17	Language used in official communications is respectful and avoids stigmatizing behavior toward any group.	Respectful communication	Likert
18	Residents perceive that outcomes of redevelopment promote social inclusion and cohesion.	Social inclusion / cohesion	Likert
19	Evaluation processes track how equity goals are being achieved over time.	Monitoring equity progress	Likert
20	Overall, redevelopment actions are fair, transparent, and beneficial to a broad range of residents.	Overall equity assessment	Likert

Table 7: Social-justice index assessment Questionnaire evaluation results

Index	Neighborhood	Question Count	Very High (5)	High (4)	Medium (3)	Low (2)	Very Low (1)	Total / Weighted Score	Average Score
Semantic-cultural	Sirous	60	6	15	24	9	6	201	171.99
	Bazaarcheh	60	9	9	24	15	3	216	
	Abdal Abad	60	6	9	15	18	12	183	

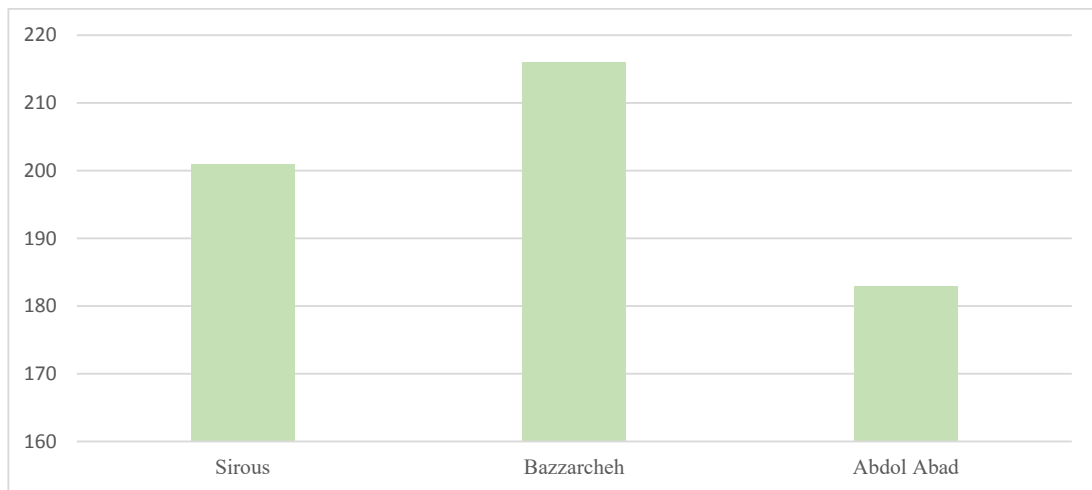


Figure 4: Frequency chart of participants' responses to Social-justice index

## CONCLUSION AND RESULT

### Model Reliability Tests

#### Cronbach's Alpha Test

Cronbach's Alpha test is the oldest test of index consistency among reliability tests. This test deals with the internal correlation of questions of a variable outside the model. The working method is according to Tenenhaus (2005) that the correlation of questions of a variable should be at least above 0.7. (Tab. 8)

Table 8: Cronbach's alpha coefficient

Index	Cronbach's Alpha
Socio-structural	0.974
Semantic-cultural	0.973
Social-justice	0.867

All Cronbach's alpha coefficients are above 0.7, and therefore reliability is confirmed.

*Composite Reliability Test (Goldstein)*

This test is the most important model reliability test in all structural equation modeling software, because its definition is similar to Cronbach’s alpha. The difference is that it estimates the correlation of questions of a variable within a model and because it affects many parameters in the model such as factor loading, path coefficient, measurement error, etc., this coefficient expresses the generalizability of the results. According to Hensler (2009), the value of this coefficient, like Cronbach’s alpha, should be above 0.7 for each variable. (Tab. 9)

Table 9: Composite reliability coefficient

Index	Composite Reliability
Socio-structural	0.981
Semantic-cultural	0.976
Social-justice	0.937

All composite reliability values are above the cutoff point of 0.7, and the reliability of this test is confirmed.

*Spearman Correlation of Indices (RHO-A) Test*

Many statisticians believe that the Likert scale is an inherently ordinal scale. And researchers in the humanities cannot use Cronbach’s alpha and composite reliability to correlate their questions using the Pearson correlation formula, which is a parametric test. To respond to this criticism, Ringel added a test to the PLS software in 2017 called RHO-A, which is actually the same as Spearman’s nonparametric correlation between questions, to show that there is no change in the results. Therefore, the method is in accordance with Ringel’s opinion that the cutoff point for each variable is 0.7. (Tab. 10)

Table 10: Spearman correlation of indices (RHO-A)

Index	RHO-A
Socio-structural	0.975
Semantic-cultural	0.976
Social-justice	0.874

*Communal reliability test*

This is the only test that does not measure reliability based on the correlation of questions, but rather this coefficient checks whether the results of a factor load are repeated from one community to another. The method is to use the communality index coefficient, which must be above 0.5 for each variable. In addition, this index is not calculated in smartpls3, unlike the previous version, but since its formula is exactly the same as AVE, we can replace it with AVE values. (Tab. 11).

Table 11: Shared reliability test

Index	Communality
Socio-structural	0.927
Semantic-cultural	0.716
Social-justice	0.882

*Summary of the four tests:*

Since the four tests of Cronbach’s alpha, composite alpha, RHO\_A index, and shared reliability have acceptable results, the reliability of the construct is confirmed.

*Model Validity Tests Model*

validity means that before collecting data, it is first examined in the form of face validity and content validity. Then, to ensure that the researcher’s standard tool measures the same variables that were intended to be measured, construct validity and reliability must be examined (unfortunately, according to research conducted in Iran, only a very small percentage of studies have construct validity). According to Giffen (2016), construct validity consists of two parts: convergent validity and discriminant validity. Convergent validity means that the reflective indicators of a variable, regardless of errors, must have correlation or convergence with each other. On the other hand, divergent validity, which is also called diagnostic validity, discriminant validity, or discriminant validity, means that the indicators of one variable or one component do not correlate with the indicators

of another variable or component. In the scientific and academic world, the most important component of the acceptability of a study for quantitative research is its divergent validity. Now, based on this classification, their tests are performed.

*Convergent Validity Tests*

There are two basic conditions for establishing this type of model validity. The first condition is around the mean of the extracted variance and the second condition is to compare it with the composite reliability. (Tab. 12).

$AVE > 0.5$

Table 12: Mean extracted variances

Index	Average Variance Extracted (AVE)
Socio-structural	0.927
Semantic-cultural	0.716
Social-justice	0.882

All values in the extracted mean variance table are greater than the cutoff point of 0.5 and the first condition of convergent validity is met. (Tab. 13).

b)  $CR > AVE$

Table 13: Comparison of mean extracted variances and composite reliability

Index	Composite Reliability	Average Variance Extracted (AVE)
Socio-structural	0.981	0.927
Semantic-cultural	0.976	0.716
Social-justice	0.937	0.882

All variables have the second condition of convergent validity, and now, according to the first table, it can be claimed that the modified external model of the research has convergent validity. That is, the indicators of each latent variable of the research converge and are collinear with each other.

*External model quality of reflection*

Variance-based methods, unlike covariance-based methods, do not have high validity due to the type of estimation of the results of the fit or the conformity of our observations with the

reality in the society. In other words, the meaning of fit in variance-based methods is not the same as in covariance-based methods. Instead, there are indices that assess the quality of the model (Gifen, 2012). The quality of the external model is now assessed with an index called the cross-validity of the composite index (CV Com). This index is calculated according to Hensler (2009) with three values of 0.02, 0.15 and 0.35, which are poor quality, moderate quality and strong quality, respectively. (Tab. 14).

Table 14: Examination of the CV-COM cross-validity index

$Q^2 (=1-SSE/SSO)$	
Socio-structural	0.778
Semantic-cultural	0.614
Social-justice	0.524

All values are much greater than 0.15, so the quality of the measurement model is at an average level. That is, the questions or indicators that the researcher has chosen measure their variables with appropriate quality. Now the tests of the measurement model or external model in the reflective mode are finished and the researcher can begin the tests of the structural model.

At the result, from a sociological perspective, the Evaluation of Social Effects Indexes of Intervention in Urban Worn-Out Fabrics highlights that social, cultural, and structural factors jointly shape the outcomes of urban redevelopment interventions. Social dynamics such as community networks, trust in local institutions, and the sense of belonging influence residents' participation, acceptance, and adherence to planned changes, ultimately mediating the effectiveness of interventions. Cultural factors, including neighborhood identity, historical memory, and shared norms, color perceptions of redevelopment, affect how residents interpret, engage with, and resist or embrace new spaces and services. Structural elements—access to resources, governance arrangements, and the quality of public spaces—constrain or enable implementation, determine equity in benefits, and shape

long-term sustainability by either reinforcing social cohesion or widening disparities among different groups. Therefore, a holistic approach to urban wear-out interventions should integrate social capital building, culturally resonant design, and robust governance mechanisms to ensure inclusive benefits. Effective strategies would align participatory processes with transparent decision-making, leverage existing networks to mobilize resources, and preserve core cultural assets while upgrading physical infrastructure. By foregrounding social and cultural legitimacy alongside structural efficiency, interventions can foster equitable access to services, strengthen social cohesion, and create resilient urban fabrics that reflect both the inherited character of neighborhoods and the evolving needs of diverse residents.

## REFERENCES

- Amiri, S., & Dehghani, M. (2022). *The analysis of the physical structure – spatial of Urban Decay of Bandar Bushehr (case study: Jofre sector of Bandar Bushehr)*. 2022, in press. <https://doi.org/10.30495/jupm.2022.29429.4069>
- Andalib, A. (2007). *A New Approach to the Management of Renovation of Dilapidated Urban Areas in Tehran*. Tehran: Tehran Renovation Organization Publications.
- Babaei, J., Mohammad, R., Bara'at K., & Mohammad, Sh. (2018). *Identifying Criteria of Weariness on Urban Areas (Case Study: Samen District of Mashhad)*. *International Journal of Engineering and Technology*, 7, 153-158. <https://doi.org/10.14419/ijet.v7i4.15.21438>.
- Coleman, J. S. (1988). *Social capital in the creation of human capital*. *American Journal of Sociology*, 94, S95-S120.
- Ebrahimi, B. R. (2021). *Investigating effective areas in regenerating worn-out urban fabric: Case study: Shushtar city*. *Geography and Human Relationships*, 2021, 4(1), 311-330. <https://doi.org/10.22034/GAHR.2021.296422.1586>
- Fainstein, S. S. (2020). *The Just City*. Ithaca, NY: Cornell University Press.
- Gehl, J. (2010). *Cities for People*. Washington, DC: Island Press.
- Habibi, M. (1998). *A Historical Analysis of the Concept of City and its Physical Appearance*. 1st ed. Tehran: Tehran University Publication.
- Harvey, D. (2009). *The Right to the City*. *New Left Review*, 53, 23-40.
- Hosseinzadeh, N., Nezafati Namin, F., Tavakoli Yaraki, A., et al. (2020). *Analysis of the spatial -physical structure of worn-out urban fabric, using strategic-hierarchical analysis (SWOT-AHP) method*. *Geography and Human Relationships*, 2020, 2(4), 352-375.
- Izadi, M.S., and Jalili H. (2010). "A New Approach to the Process and Structure of Preparing Urban Redevelopment and Regeneration Plans and Programs: A Review of Findings from the Analysis and Evaluation of Urban Landscape Plans." *The Second National Conference on Rehabilitation and Regeneration of Historical, Damaged Urban Textures and Informal Settlements in Shiraz*.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York, NY: Vintage.
- Jeddi, Farzaneh A. (2021). *Explanation of physical-social resilience of historical worn-out fabric with emphasis on sustainable urban form*. *Journal of Urban Management and Energy Sustainability*, 3(1), 86-95. <https://doi.org/10.22034/JUMES.2021.249505>
- Khan Ahmadtloo, R. (1999). *Evaluating the Comprehensive Plan of Qom*. MA thesis, Shahid Beheshti University, Tehran: Faculty of Architecture and Urban Development.
- Klinenberg, S. (2018). *Palaces for the People: How Social Infrastructure Can Help Fight Inequality*. New York, NY: Crown.
- Lees, L. (2008). *Urban Renaissance: Places and People after the Property Boom*. *Urban Policy and Research*, 26(4), 481-492.
- Lefebvre, H. (1991). *The Production of Space*. Oxford, UK: Blackwell.
- Lund, E., & Buikslott, M. (2016). *Urban commons and social cohesion: The role of shared spaces*. *Journal of Urban Affairs*, 38(5), 711-725.

- Marshall, G. (1998). *A Dictionary of Sociology*. Oxford, UK: Oxford University Press.
- Massey, D. (1993). Power-geometry and a progressive sense of place. In J. Agnew & J. Duncan (Eds.), *The Geography of Power* (pp. 141-161). New York, NY: Routledge.
- McDonald, S., Naglis N.M., and Maliene, V. (2009). "Urban regeneration for sustainable communities: A case study." LicenseCC BY TechNological aNd ecoNomlc developmeNT oF ecoNomY-Baltic Journal on Sustainability 1 (15): 49-59. [doi:10.3846/1392-8619.2009.15.49-59](https://doi.org/10.3846/1392-8619.2009.15.49-59).
- Mesgaran Kermani, R., Mofidi Shemirani, S., & Nikghadam, N. (2022). Investigation of the exterior skin proportions of urban district buildings with a climatic management approach. *International Journal of Human Capital in Urban Management*, 7(2), 245-266. <https://doi.org/10.22034/IJH-CUM.2022.02.08>
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1-24.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York, NY: Simon & Schuster.
- Sandercock, L. (1998). *Towards Cosmopolis: Planning for Multicultural Cities*. Chichester, UK: Wiley.
- Sandercock, L. (2003). *Cosmopolis II: Mongrel Cities in the 21st Century*. Oxford, UK: Blackwell.
- Sennett, R. (2000). *The Strength of Local Culture*. In C. D. Smith (Ed.), *The New Urban Sociology* (pp. 85-98). New York, NY: Routledge.
- Tallon, R. A.M. (2013). *What do young people think of development? An exploration into the meanings young people make from NGO media (Thesis)*. Wellington, New Zealand: Victoria University of Wellington - Faculty of Education.
- Topchi, A. (2010). *Sustainable urban regeneration, a new approach to intervention in dilapidated urban textures*. Urban Planning Department, Isfahan University of Art.
- Ziyari, K. A., Anbarlou, A., Taqi, H., & Yeganeqi, K. (2018). Spatial Analysis of Worn-Out Urban Fabric in Zanjan City with Emphasis on Livability Approach. *International Review of Management and Business Research*, 2018, 7(1), 63-73. [https://doi.org/10.30543/7-1\(2018\)-7](https://doi.org/10.30543/7-1(2018)-7).

COPYRIGHTS

©2023 The author(s). This is an open access article distributed under the terms of the Creative Commons Attribution (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, as long as the original authors and source are cited. No permission is required from the authors or the publishers.

