Original Research Paper

Structural Analysis of Factors Influencing the Creative Consumption of Urban Space by Women (Case Study: Behesht Boulevard, Shiraz)

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A R T I C L E I N F O	Abstract
	The creative consumption of space by women refers to the innovative, multi-purpose, and experience-oriented use of urban spaces. in this regard, the present study was conducted with the aim of analyzing the factors influencing the creative consumption of urban space by women in Behesht Boulevard, District 6, Shiraz. Considering the research objectives and the components under investigation, the research is of an applied type and its method is descriptive-analytical. Theoretical data were collected using a documentary method, while empirical data were gathered through a survey-based Delphi technique. The statistical population consisted of 30 experts and specialists selected through a purposive or judgmental sampling. A total of 31 drivers, structured in 4 main dimensions, were processed using structural cross-impact analysis within the MICMAC software. the findings from the cross-impact analysis indicate a complex and intertwined distribution of drivers in terms of their influence and susceptibility. the clustering system of the drivers shows a concentration in a dual-cluster system. Among the 31 driving forces, the following key factors had the highest direct impact on the mentioned boulevard: designing safe spaces for women, attracting women's participation in decision-making, creating multi-purpose social spaces, raising awareness about women's rights, supporting women's voluntary activities, developing local social groups, providing job opportunities in the artistic and creative sectors, organizing cultural activities specifically for women, ensuring easy access to public spaces, designing child-friendly public spaces, promoting a culture of using art in public spaces, providing accessible health and welfare facilities, and establishing cultural and artistic learning environments.

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Introduction

Urban spaces, as key platforms for social, cultural, and creative interactions, play a fundamental role in the reproduction of identity and the strengthening of social participation. A significant aspect of this role is the creative consumption of urban spaces by women, which is interdisciplinary in nature and is examined in conjunction with fields such as urban sociology, gender studies, urban planning, and the creative economy. In recent decades, the growth of human-centered approaches in urban planning and an emphasis on spatial justice have doubled the necessity of studying how women utilize public and semi-public spaces (UN-Habitat, 2020). Women are not merely passive users but are active agents in redefining the meanings and functions of urban spaces (Massey, 1994); a role that manifests in the form of "creative consumption," meaning the innovative, multi-purpose, and experience-based utilization of spaces whose primary function was originally different (Lefebvre, 1991; Florida, 2019).

However, women's creative consumption of space, whether in the form of voluntary activities such as mobile art workshops or social activities like cultural gatherings, faces numerous obstacles and limitations (Kern, 2020). Gender inequalities, physical shortcomings, and a lack of inclusive design restrict women's active participation in public spaces (Beebeejaun, 2017). International reports also indicate that in many cities, women participate less in creative activities in public spaces due to a lack of security and suitable access (UN-Habitat, 2020). These limitations not only reduce women's opportunities for self-expression and symbolic resistance but also weaken cities' capacity for cultural development and the expansion of the creative economy.

The lack of physical infrastructure such as suitable street furniture, adequate lighting, and unimpeded paths is a serious obstacle to women's innovative activities (Young, 1980). Furthermore, the fear of street harassment and social judgment reduces their voluntary presence in creative activities (Pain, 2001). A lack of attention to the sociability of spaces in urban design (Gehl, 2010) and the absence of social and symbolic access through welcoming signs (Fenster, 2005) weaken women's sense of belonging to these spaces. Similarly,

inappropriate timing of activities and a lack of safe hours limit women's mobility and their creative consumption of space (Vázquez, 2021). These obstacles, in addition to their direct impact on the quality of women's lives, prevent the realization of the "right to the city," a concept that emphasizes the necessity of their active participation in the production of space (Lefebvre, 1996). In contrast, the experience of cities like Melbourne shows that a women-centered design and attention to their specific needs can significantly enhance the creative consumption of space (Vázquez, 2021). The absence of such frameworks in many cities, including those in Iran, highlights a significant research gap (UNESCO, 2023).

Women's lived experience in the city has always been influenced by social and cultural structures, especially in more traditional societies where male-centric designs, a lack of safe spaces, and time constraints have reduced the diversity and sustainability of patterns of creative space consumption. Previous studies show that equal access and a sense of security are fundamental prerequisites for women's creative and active presence in urban spaces (Whitzman *et al.,* 2013). In recent years, the emergence of multi-functional spaces such as cafés, cinema-cafés, handicraft markets, pedestrian-friendly streets, and street cultural events has created new capacities for redefining women's role in space consumption (Zukin, 1995). These spaces can simultaneously provide social, cultural, and economic functions for women and serve as a platform for the creation of new urban identities. Nevertheless, in many cities in Iran—including Shiraz a deep and systematic study of the creative consumption of space by women, especially in high-traffic, high-potential areas like important streets and boulevards, remains neglected (Jacobs, 1991; Montgomery, 1998).

Behesht Boulevard in Shiraz, due to its unique combination of residential, commercial, recreational, and cultural uses, is considered a dynamic platform for the formation of this type of creative consumption. The presence of cafés, restaurants, green spaces, shopping centers, and special gathering spots for women, such as cinema-cafés and exclusive restaurants, has created conditions where women's presence and social interactions in this urban corridor are accompanied by greater quality and diversity. Currently, although Behesht Boulevard has

high potential in terms of urban facilities and attractions, the lack of a clear strategic framework to guide creative consumption by women has meant that some capacities have not been actualized. These challenges include the weakness in linking various uses, a lack of flexible multi-purpose spaces, limitations in planning women-centered social events, and a lack of coordination between urban management and local businesses.

Therefore, a structural analysis of the factors influencing the creative consumption of urban space by women on Behesht Boulevard is essential for achieving effective strategies to improve the quality of urban experience and realize sustainable social development. This analysis can, while identifying existing strengths and weaknesses, provide a foundation for designing spatial, managerial, and cultural interventions that are appropriate for women's needs and enhance their role in urban life. In line with this, the present study aims to identify and investigate the factors influencing the state of creative consumption of urban spaces on Behesht Boulevard, District 6 of Shiraz, using a structural analysis method. In line with this goal, the main research question is:

- What are the key factors influencing the state of creative consumption of urban spaces on Behesht Boulevard, District 6 of Shiraz?

Literature Review

The gendered dimensions of public spaces, especially in the 21st century, have become a central area of interdisciplinary research. A wide range of studies and social activism has analyzed its ideological, physical, and methodological aspects from the perspective of various disciplines such as geography, anthropology, sociology, literature, architecture, history, and the interdisciplinary fields of urban and rural studies (Gqola *et al.,* 2024).

A review of the existing literature shows that women in urban settings often face systemic limitations in accessing spaces and urban resources. This situation reproduces various forms of socio-spatial deprivation for them (Grundström & Molina, 2012). The origin of these deprivations can be sought in a set of structural and cultural factors, including deeply ingrained gender norms, unequal allocation of public facilities and infrastructure, limited presence in urban decision-making and planning processes, insufficient safety

interventions, and the persistence of social stereotypes that lead to the entrenchment and reproduction of women's vulnerability (Dubey et al., 2025).

Empirical evidence and comparative studies have shown that urban spaces designed and managed with the effective and decision-making participation of women have not only helped improve their individual and collective creativity but have also provided an efficient platform for strengthening cultural and social interactions. Accordingly, integrating women's perspectives and needs into various stages of urban design and planning, in addition to expanding their access to public spaces, can significantly enhance the capacity for creative and multi-layered use of these spaces. Nevertheless, the dominance of patriarchal structures continues to play a role in determining the extent and quality of women's access to public spaces, and in many contexts, it limits or conditions their entry and presence based on pre-existing gender norms, including prescriptive dress codes and behavioral patterns (Mukwidigwi and Naidu, 2024).

The creative consumption of urban spaces by women is heavily influenced by a set of behavioral, environmental, and social factors (Taghizadeh, 2022). Recent research findings indicate that, on average, women show less inclination to be in public spaces for recreation and leisure. This phenomenon is primarily due to a sense of insecurity and fear of crime in urban environments, which ultimately prevents their active participation in these spaces (Sundquist et al., 2011). Therefore, public spaces should be designed to not only ensure women's physical and psychological safety but also enhance their sense of comfort and belonging (Polko and Kimic, 2022).

In this context, Dutsev (2018) considers the creative consumption of urban spaces to be a process through which individuals, by utilizing artistic interactions and play, create a dynamic and multi-layered relationship with their surroundings. This relationship leads to the integration of art, architecture, and consumer culture into the urban lived experience (Dutsev, 2018). Similarly, Gwiaździński et al. (2020) define this concept as including the use of technology and artistic strategies such as visual mapping to increase social interactions, strengthen cultural identity, and transform streets into vibrant platforms that, while creating human connections, help preserve the

collective memory in smart cities (Gwiaździński *et al.,* 2020).

One of the most important prerequisites for the realization of women's creative consumption of urban spaces is the provision of physical and psychological security. Field experiences show that a sense of security, especially in public spaces, is a key factor in determining the extent of women's presence and participation. In many cities, women face threats such as violence, street harassment, and discrimination, which often leads to their "self-exclusion" from public spaces (Mukwidigwi and Naidu, 2024). Therefore, urban design must respond to women's security needs with a multi-dimensional approach; an approach that, in addition to physical considerations, also includes social and cultural interventions to allow for the free and unrestricted use of space. In this regard, cultural developments and changes in social attitudes can play a significant role in enhancing security and increasing women's tendency to creatively utilize public spaces (Rampaul, 2022).

Alongside security, the quality and nature of public space design also impacts women's patterns of creative consumption. In many cities, traditional, male-centric designs have shaped spaces that do not meet the needs of women. For example, spaces primarily planned for male physical activities may not have sufficient appeal for women or may even lead to their unintentional exclusion from the process of use (Malhotra *et al.,* 2023).

Additionally, the extent and quality of women's participation in urban decision-making and planning processes is a determining factor in enhancing the creative consumption of public spaces. When women are excluded from the stages of space formulation, design, and management a situation common in many developing countries the final design will often lack the necessary flexibility to meet their diverse needs. Active and structured participation of women in these processes can provide a platform for a more accurate identification of their needs and ultimately lead to the creation of spaces that enrich their lived experience and solidify their presence at the heart of urban life (Mukwidigwi and Naidu, 2024).

The creation of diverse, safe, and user-friendly spaces that simultaneously host cultural and social programs tailored to the specific needs of women is considered one of the most important strategies for increasing their presence in urban settings. This will be more effective if, at the same time, the improvement of women's social and economic status is also a priority in urban policies. This is because women's social standing in many societies is shaped by patriarchal structures, and this can limit their effective utilization of urban spaces. The realization of such goals requires coordinated cooperation among government agencies, urban designers, and women themselves. This collaboration can lead to the creation of spaces that not only serve as a ground for women's meaningful social interactions but also provide a platform for the expression of their creativity and self. Such an approach, in addition to enhancing the quality of life for women, can, in the long term, contribute to the sustainable and resilient development of cities (Sadeghi *et al.,* 2023).

The study of women's presence patterns and activities in urban spaces can be categorized into several analytical approaches: gender equality, sociological and civic, behavioral, and psychological. Although many previous studies have focused on the typology, form, function, and dimensions of public spaces, they have often paid less attention to the gendered experience and its representation in analyses. The typology of public spaces has continuously evolved, influenced by changes in lifestyle, cultural shifts, and citizens' new attitudes. However, while dimensions of policy, environment, economics, and civic culture have been widely considered in urban planning studies, specific research and policies related to the connection between women and public spaces remain limited and fragmented (Sadeghi *et al.,* 2023).

From a theoretical perspective, a diverse range of analytical frameworks regarding gender and public spaces has been proposed. For example, the feminist theory of space, developed by Jane Jacobs and Dorothy Smith, emphasizes the importance of women's presence in public spaces and the role of urban design in shaping their experience. On the other hand, postcolonial feminist theories, proposed by Mohanty and Spivak, analyze the power relations and the effects of colonialism and

racism on women's experiences in public spaces (Das, 2015). This approach argues that women's experiences in urban contexts are often shaped within the framework of dominant forces whether gender-based, racial, or colonial and that these dimensions must be considered when rethinking spatial design. Similarly, the theory of the production of space, as narrated by Henri Lefebvre, considers urban spaces to be a construct of social, economic, and political processes. These spaces are not produced passively, but rather through a dynamic interaction with structural forces and individual and collective actions.

Table 1. Comparison of Approaches and Theories Related to Gender and Public Spaces

Approach / Theory	Key Thinkers or Founders	Main Focus Areas	Conceptual Emphasis	Consequence for Urban Design and Planning
Gender Equality Approach	-	Elimination of structural discrimination, creation of equal opportunities	Focus on equal rights and universal access	Reform of urban policies and laws for equitable access to spaces for women
Sociological and Civic Approach	-	The role of space in the reproduction of social relations	Analysis of the role of social networks and civic participation	Strengthening women's participation in the management and supervision of urban spaces
Behavioral Approach	-	Study of women's patterns of use and interaction with space	Examination of the influence of physical and social factors on spatial behavior	Design of spaces that align with women's movement and behavioral patterns
Psychological Approach	-	Women's perception, sense of security, and belonging to space	The influence of subjective components on the use of space	Creation of safe, pleasant spaces with a positive social identity
Feminist Theory of Space	Jane Jacobs, Dorothy Smith	The importance of women's presence in public spaces	The connection between urban design and the gendered experience	Participatory and women-centered design of public spaces
Postcolonial Feminist Theory	Chandra Mohanty, Gayatri Spivak	The impact of colonialism and racism on women's experiences	Power relations and dominance in space	Inclusion of cultural, ethnic, and historical dimensions in urban design
Theory of the Production of Space	Henri Lefebvre	Space as a social construct	The interaction of economic, political, and cultural forces in the production of space	Re-evaluation of the processes of space production and allocation in a participatory manner

Source: Library studies by the authors, 2025

Haji Ahmadi Hamadani et al. (2018) in an article, examined the factors influencing the formation of women's mental image to make it possible to create a desirable environment from the perspective of this social group, and they evaluated their spatial preferences in the city of Tehran. The results of this research indicate that the choice of a place evaluated as desirable through the lens of women's mental image is related to shared meanings connected with the concepts of freedom, justice, security, place status, having a socio-cultural identity, historical identity, beauty, being stylish and full of details, quiet and cozy, having privacy while being vast, greenery, a happy spirit, and health. Hatami-Nezhad et al. (2020) in an article, analyzed the factors influencing the vitality of future urban spaces for women's participation. The results of this research showed that the indices of safety and security, accessibility, diversity and attractiveness, social justice, space efficiency, environmental quality, comfort and convenience, social interaction, and sense of place are effective on the vitality of future urban spaces for the active presence of women. Among the mentioned indices, space efficiency, diversity and attractiveness, and environmental quality had the most impact on women's presence in future urban spaces. The pattern presented in this research can be used as a model to measure the vitality of future urban spaces for the active presence of women in the country's cities.

Sarvari (2021) in an article, explained the creative design process of urban space. The results of this research showed that the complexity and multiplicity of urban space layers, the diversity of user groups, the abundance of visual elements, and the influence of other disciplines involved in creating and

enhancing the qualities of urban space are the main factors in the complexity of creativity in urban space design. The creative urban space design process is different from other creative design methods and can be performed through five main stages: familiarity, focus, latency, emergence, and evaluation.

Dabbaghi and Bahari (2024) in an article with an emphasis on the importance of urban public spaces for women, studied the most important priorities and needs of women in the public spaces of the cultural center (Farhangsara) and the women's center (Shahrbanoo) in Tehran. The findings of this research showed that the most important needs of women in public spaces can be defined in three main categories: social (women's insecurity, lack of suitable laws, institutionalized gender inequality, and women's neglected needs in urban design), a physical dimension (inefficient physical infrastructures, crime-inducing urban infrastructures, and gender differences in perception of space), and a psychological dimension (urban design and identity redefinition, urban design and the encouragement of a sense of life, and women's disappointment with urban planning).

Rampaul et al. (2022) in an article, examined the use of gender mainstreaming in the design of urban spaces to promote inclusive cities in the Warwick urban market in Durban, South Africa. The results of this research show that women's experience and perception of urban spaces have significant differences from those of men, and these differences should be considered in the process of planning and developing urban spaces. Analyses have shown that women's participation in decision-making and the application of a "gender mainstreaming" approach can lead to the creation of more inclusive and safer urban public spaces for everyone. Desirable design and the creation of social dialogues in the community are among the proposed solutions for achieving inclusive cities.

Malhotra et al. (2023) in an article titled "From Exclusion to Belonging: Assessing Women's Perception of Public Open Spaces," re-examined women's experience and perception of open urban public spaces. The findings of this research showed that women's perception and experience of open public spaces are affected by a complex interaction of social,

cultural, and environmental factors. Social norms and safety-related concerns play a determining role in how women use these spaces. The design and management of the physical environment also directly impact women's sense of comfort and belonging to these places. Also, women's interaction with public spaces shapes their sense of place and social identity. Finally, this research, by providing strategic suggestions, emphasizes the necessity of the inclusive design and management of these spaces to strengthen gender equality and social inclusion.

Mukwidigwi & Naidu (2024) in an article, examined gender inequalities in urban spaces and their consequences on the exclusion of women from public arenas in South Africa. The results of this research show that women, due to negative experiences and fear of being victimized, turn to "self-exclusion" from public spaces. This behavior leads to a limitation in the realization of the right to the city for them. Also, the intersecting hierarchies of gender, race, age, and nationality have led to the reproduction of intersecting exclusions and the creation of multiple barriers to accessing public spaces. These factors, along with spatial and cultural limitations, violate women's embodied right to the city.

The Area under Study

Behesht Boulevard, one of Shiraz's most popular areas, is located in Municipal District 6, at the heart of Ma'aliabad Boulevard. The boulevard is bordered by Shiraz's ring road to the north, Shahid Kabar Street, Behesht Boulevard, and Chamran 50th Street to the east, and Shahid Kabar Square to the south.

Its strategic location and proximity to major boulevards like Chamran and other key highways allow for quick access to other parts of the city. The cooler climate compared to other parts of Shiraz and its calm, pleasant scenery make it highly attractive for residents. The presence of metro stations (Line 1) and numerous bus routes has made commuting easy. The neighborhood's luxurious villas and modern apartments are considered an excellent option for investment and high-quality living. Behesht Boulevard is also known as a popular hub for cinemas, cafés, and diverse restaurants, especially those with dedicated spaces for women (Fig. 1).
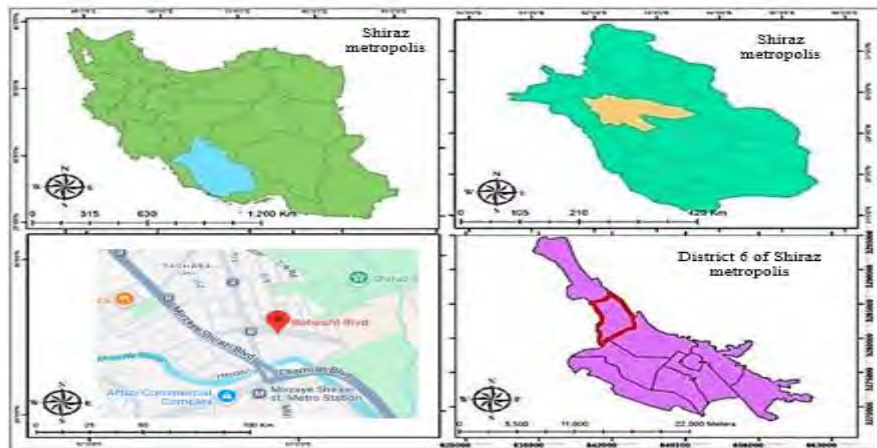
Fig 1. Geographical location of Behesht Boulevard in District 6 of Shiraz metropolis

Methodology

This study used a futures research approach to identify and analyze the most important factors influencing the creative consumption of urban spaces on Behesht Boulevard, located in District 6 of Shiraz. The research is applied in its objective and, from a methodological standpoint, combines documentary and survey methods with an analytical-exploratory approach based on modern futures research techniques.

To identify key obstacles and variables, the researchers first reviewed existing documents and sources. Subsequently, data was gathered through a survey using the Delphi technique. The study used a purposive or judgmental sampling method for selecting the Delphi panel members, as the goal was not to generalize the results to a larger population. The criteria for selecting experts included theoretical mastery of the subject, practical experience in the related field, a willingness and ability to participate actively, and accessibility.

An important point in determining the number of experts was ensuring a complete coverage of different viewpoints and specialized diversity. Accordingly, the statistical population for the structural analysis section consisted of 14 to 30 experts and specialists, a range consistent with conventional standards in similar studies (Akbari *et al.,* 2020: 289). Based on these criteria, a total of 30 experts and specialists in the fields of urban planning, urban design, and architecture were ultimately selected to participate in the research process.

The information was processed using Structural Cross-Impact Analysis (MICMAC) software. Through the Delphi method, 31 initial drivers were identified across four dimensions: economic, socio-cultural, infrastructure, and health and welfare (Table 2).

Table 2. Identified Initial Factors

Dimension	Drivers	Operational Definition
Economic	Var01. Presence of local women's markets	Facilitating access to markets for women to sell local and handmade products.
	Var02. Presence of commercial spaces for rent at low cost	Supporting female entrepreneurs to access suitable business spaces.
	Var03. Allocation of budget for creative projects	Providing funding and micro-loans for female artists and entrepreneurs.
	Var04. Holding women's business exhibitions	Creating opportunities for women to display their products and skills.
	Var05. Offering tax deductions and economic incentives	Providing economic support for women who use urban spaces creatively.
	Var06. Presence of job opportunities in the artistic and creative sectors	Facilitating the employment of women in creativity-related fields.
Socio-cultural	Var07. Promotion of public training programs	Holding public training courses to strengthen women's skills in using urban spaces.
	Var08. Holding cultural activities specifically for women	Organizing festivals and cultural events to increase women's participation in urban spaces.
	Var09. Development of local social groups	The existence of local groups to encourage women's creative use of public spaces.

Dimension	Drivers	Operational Definition
	Var10. Creation of multi-purpose social spaces	Designing flexible spaces for various social uses by women.
	Var11. Design of safe spaces for women	Supervision and increased security to improve women's access to public spaces.
	Var12. Presence of spaces dedicated to women's sports activities	Designing spaces dedicated to women's sports in public areas.
	Var13. Holding accessible cultural and artistic programs	Regularly holding cultural programs for women.
	Var14. Attracting women's participation in decision-making	The presence of women on local committees and in urban planning.
	Var15. Promotion of a culture of using art in public spaces	Using public art that encourages women to participate in creative activities.
	Var16. Presence of cultural and artistic learning environments	The existence of public artistic and cultural spaces for women.
	Var17. Presence of workshop spaces for female artists	Spaces for the existence and display of women's art in public spaces.
	Var18. Promoting awareness about women's rights	Increasing public awareness about the role of women in society.
	Var19. Support for women's voluntary activities	Encouraging women to participate in social activities.
Infrastructure	Var20. Design of public spaces suitable for children	Designing urban spaces that women can use with their children.
	Var21. Better lighting in urban spaces	Improving lighting on streets and in public spaces to create a sense of security.
	Var22. Access to public transportation suitable for women	Providing special facilities for women in public transportation.
	Var23. Easy access to public spaces	Designing accessible public spaces for women with different needs.
	Var24. Presence of suitable rest areas for women	The presence of benches and suitable resting places on streets and in parks.
	Var25. Presence of parking spaces dedicated to women	Secure parking spaces close to entrances for women's use.
	Var26. Presence of accessible educational centers	The existence of educational centers that women can benefit from.
Health and Welfare	Var27. Presence of accessible health and welfare facilities	Easy access to restrooms and welfare facilities in urban spaces.
	Var28. Provision of medical services near public spaces	Providing medical and healthcare services in urban areas where women are more present.
	Var29. Presence of special spaces for mothers	Suitable spaces for mothers with children in public areas.
	Var30. Presence of large spaces for women's group activities	The existence of large spaces for women's group activities like yoga and meditation.
	Var31. Design and development of green spaces for women's use	The design and development of green spaces for women's use that provide opportunities for recreation and relaxation.

Source: Dabbaghi & Bahari, 2024; Scarponi et al., 2023; Malhotra & Aulakh, 2023; Sadeghi et al., 2023; Dubey et al., 2025; Gargiulo et al., 2020.

Results and discussion

Discussion and Presentation of Findings
Overall analysis of the system environment: Table (3) shows the outcome of the cross-impacts of 31 effective factors on the status of the creative consumption of urban space by women in Behesht Boulevard, District 6 of Shiraz, based on the formation of a 31x31 matrix. The results of this table indicate a repetition count of 2 and a fill rate of 93.03%, which shows that the selected factors had a great influence on each other. Out of a total of 894 evaluable relationships in the matrix, 67 relationships have a value of zero; this amount means that the driver factors did not influence each other or were not influenced by each other. 273 relationships with a value of one have a weak influence on each other, and 365 relationships with a value of two have relatively strong influential relationships. Additionally, 256 relationships have a value of three, and this means that the relationships between the key factors were very great and have a high degree of influence and susceptibility.

Table 3. Initial analysis of matrix data and cross-impacts of drivers

Index	Matrix size	Repetition count	Number of zeros	Number of ones	Number of twos	Number of threes	Total	Fill rate
Value	31	2	67	273	365	256	894	93.03%

The matrix of this study, based on statistical factors with 2 rotations, has a 100% desirability and optimization, which indicates a high validity of the questionnaire and its responses (Table 4).

Table 4. Matrix desirability and optimization degree

Susceptibility	Influence	Rotation
98%	99%	1
99%	100%	2

Evaluation of the influence and susceptibility plane of effective factors on the status of the creative consumption of urban space by women in Behesht Boulevard, District 6 of Shiraz
The distribution pattern of the effective factors on the status of the creative consumption of urban space by women in Behesht Boulevard, District 6 of Shiraz, on the scatter plot indicates the level of stability or instability of the system. In the structural cross-impact analysis method with MICMAC software, there are a total of two general distribution models that are known as stable and unstable systems. In the stable system model, the distribution of variables is L-shaped; in this model, some factors have high influence and some have high susceptibility; but in unstable systems, the situation is more complex; in this system, the driving forces are scattered around the diagonal axis of the plane and in most cases are in an intermediate state of influence and susceptibility, which makes it difficult to identify key factors (Fig. 2 & 3).
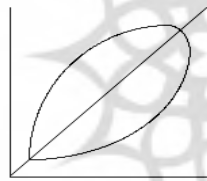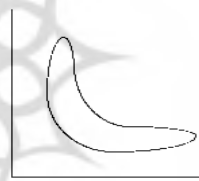

Fig 2. Unstable system   **Fig 3.** Stable system

Figure (4) shows the scatter pattern of the effective factors on the status of the creative consumption of urban space by women in Behesht Boulevard, District 6 of Shiraz. This scatter pattern generally indicates the status of an unstable system. The studied factors, with the exception of a few drivers that have a high influence on the system, are generally established in a situation of similar influence in the influential factors section.
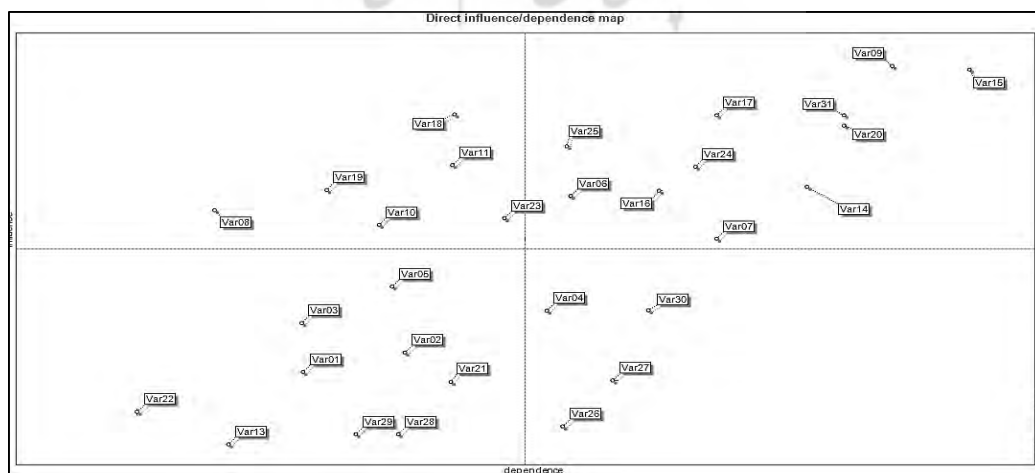

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Fig 4. Scatter of effective factors on the creative consumption of urban space by women on Behesht Boulevard, District 6 of Shiraz

Table 5. The Level of Direct and Indirect Effects of Factors on Each Other

Rank	Direct Effects Factor	Influence	Indirect Effects Factor	Susceptibility
1	Design of safe spaces for women	426	Development of local social groups	441
2	Attracting women's participation in decision-making	439	Promotion of a culture of using art in public spaces	420
3	Creation of multi-purpose social spaces	437	Promoting awareness about women's rights	413
4	Promoting awareness about women's rights	421	Holding cultural activities specifically for women	393
5	Support for women's voluntary activities	412	Presence of cultural and artistic learning environments	387
6	Development of local social groups	408	Design of public spaces suitable for children	392
7	Presence of job opportunities in the artistic and creative sectors	395	Design and development of green spaces for women's use	388
8	Holding cultural activities specifically for women	394	Presence of large spaces for women's group activities	384
9	Easy access to public spaces	393	Presence of parking spaces dedicated to women	379
10	Design of public spaces suitable for children	394	Attracting women's participation in decision-making	369
11	Promotion of a culture of using art in public spaces	392	Presence of accessible educational centers	367
12	Presence of accessible health and welfare facilities	392	Presence of accessible health and welfare facilities	363
13	Presence of cultural and artistic learning environments	389	Promotion of public training programs	357
14	Design and development of green spaces for women's use	337	Presence of workshop spaces for female artists	353
15	Presence of workshop spaces for female artists	331	Presence of spaces dedicated to women's sports activities	354
16	Promotion of public training programs	328	Creation of multi-purpose social spaces	349
17	Presence of parking spaces dedicated to women	322	Presence of suitable rest areas for women	345
18	Presence of large spaces for women's group activities	307	Support for women's voluntary activities	328
19	Offering tax deductions and economic incentives	300	Presence of job opportunities in the artistic and creative sectors	305
20	Presence of accessible educational centers	293	Holding women's business exhibitions	302
21	Holding women's business exhibitions	278	Easy access to public spaces	300
22	Presence of local women's markets	274	Presence of local women's markets	293
23	Presence of spaces dedicated to women's sports activities	272	Design of safe spaces for women	290
24	Presence of commercial spaces for rent at low cost	266	Provision of medical services near public spaces	268
25	Access to public transportation suitable for women	256	Presence of commercial spaces for rent at low cost	260
26	Allocation of budget for creative projects	254	Presence of special spaces for mothers	259
27	Better lighting in urban spaces	239	Better lighting in urban spaces	245
28	Provision of medical services near public spaces	221	Holding accessible cultural and artistic programs	227
29	Presence of special spaces for mothers	221	Offering tax deductions and economic incentives	214
30	Holding accessible cultural and artistic programs	212	Allocation of budget for creative projects	204
31	Presence of suitable rest areas for women	204	Access to public transportation suitable for women	175

Clustering of Factors Influencing the Creative Consumption of Urban Space by Women on Behesht Boulevard, District 6 of Shiraz

Influential Factors: This category represents the most critical and strategically important factors for the quality of women's creative consumption of urban space on Behesht Boulevard, District 6 of Shiraz. These factors include easy access to public spaces, design of safe spaces for women, creation of multi-purpose social spaces, support for women's voluntary activities, creation of special cultural spaces for women, and holding cultural activities specifically for women (Table 6). These factors have the highest influence and the lowest susceptibility and, as the most critical drivers, the system's overall status and changes depend on their performance. Influential factors are considered system inputs and are not controllable by the system itself because they are external to it and act as stable factors.

Dual Factors: These factors act simultaneously as both susceptible and influential. A total of 11 factors influencing the creative consumption of urban space by women on Behesht Boulevard, District 6 of Shiraz, are dual factors, being both influential and susceptible. As seen in Table 5, they include: presence of social support and counseling centers for women, presence of job opportunities in the artistic and creative sectors, presence of cultural and artistic learning environments, promotion of public training programs, holding cultural events in open spaces, presence of suitable rest areas for women, presence of workshop spaces for female artists, design and development of green spaces for women's use, design of public spaces suitable for children, development of local social groups, and promotion of a culture of using art in public spaces. Any change in these drivers can affect the system's stability. These forces are further divided into two categories: risk factors and target factors, as follows:

Risk Factors: Risk factors have a very high capacity to become key players in the system because, due to their unstable nature, they have the potential to become a point of system inertia. The factors presence of commercial spaces for rent at low cost and design and development of green spaces for women's use are located in this area.

Target Factors: No drivers are located in this area. This driver is more susceptible than it is influential and can be identified and introduced as a result of the system's evolution with an acceptable degree of certainty. By manipulating this driver, changes and evolution of the system can be achieved in the desired direction. Therefore, rather than displaying a predetermined outcome, it represents possible goals within the system.

Susceptible Factors: Factors in this area have low influence and very high susceptibility in the system, and they are affected by the evolution of the influential factors. Susceptible factors are very sensitive and are considered system outputs. The factors holding women's business exhibitions, presence of large spaces for women's group activities, presence of accessible health and welfare facilities, and presence of accessible educational centers are located in this area.

Independent Factors: The factors access to suitable public transportation for women, holding accessible cultural and artistic programs, presence of local women's markets, allocation of budget for creative projects, presence of special spaces for mothers, provision of medical services near public spaces, presence of commercial spaces for rent at low cost, training of entrepreneurship skills for women, and better lighting in urban spaces are independent and isolated factors of the system. These effective forces are neither significantly influenced by other system factors nor do they have much effect on them, or they are ineffective. They have little connection with the system because they neither stop the main driver nor cause a factor in the system to evolve and progress.

"Secondary Leverage" Factors: Although these drivers are completely independent, they are more influential than susceptible. They are located in the southwest part of the diagram and above the diagonal line and can be used as measurement points and as a criterion. No factor is located in this area.

"Regulatory" Factors: These drivers are located near the center of gravity of the diagram. They can act successively as "secondary leverage," "weak targets," and "secondary risk factors." The factor presence of job opportunities in the artistic and creative sectors is located in this area.

Table 6. Clustering of Influential Factors on the Status of Women's Creative Consumption of Urban Space on Behesht Boulevard, District 6 of Shiraz

Factor Type	Factors
Influential	Easy access to public spaces, design of safe spaces for women, creation of multi-purpose social spaces, support for women's voluntary activities, creation of special cultural spaces for women, and holding cultural activities specifically for women.
Dual	Presence of social support and counseling centers for women, presence of job opportunities in the artistic and creative sectors, presence of cultural and artistic learning environments, promotion of public training programs, holding cultural events in open spaces, presence of suitable rest areas for women, presence of workshop spaces for female artists, design and development of green spaces for women's use, design of public spaces suitable for children, development of local social groups, and promotion of a culture of using art in public spaces.
Regulatory	-
Susceptible	Holding women's business exhibitions, presence of large spaces for women's group activities, presence of accessible health and welfare facilities, and presence of accessible educational centers.
Independent	Access to suitable public transportation for women, holding accessible cultural and artistic programs, presence of local women's markets, allocation of budget for creative projects, presence of special spaces for mothers, provision of medical services near public spaces, presence of commercial spaces for rent at low cost, training of entrepreneurship skills for women, and better lighting in urban spaces.
Target	-
Risk	Presence of job opportunities in the artistic and creative sectors.

Figures 8 and 9 show the graphical representation of the factors influencing the creative consumption of urban space by women on Behesht Boulevard, District 6 of Shiraz. In these figures, the direct and indirect effects of the drivers on other system factors are specified. The manner of the factors' influence is described as weakest influence, weak influence, medium influence, strong influence, and strongest influence.
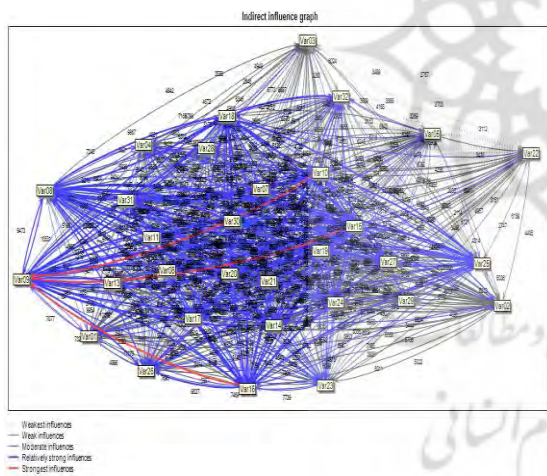
Fig 6. Indirect relationships between factors (from very weak to very strong)
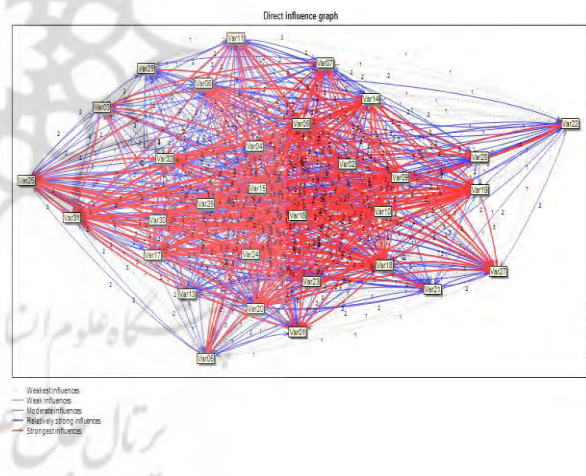
Fig 5. Direct relationships between factors (from very weak to very strong)

Identification of Key Factors Influencing the Creative Consumption of Urban Space by Women on Behesht Boulevard, District 6 of Shiraz

Out of 31 drivers, 13 factors have a greater key influence on the creative consumption of urban space by women on Behesht Boulevard, District 6 of Shiraz. These include designing safe spaces for women, attracting women's participation in decision-making, creating multi-purpose social spaces, promoting awareness about women's rights, supporting women's voluntary activities, developing local social groups, providing job opportunities in

the artistic and creative sectors, holding cultural activities specifically for women, providing easy access to public spaces, designing public spaces suitable for children, promoting a culture of using art in public spaces, providing accessible health and welfare facilities, and the presence of cultural and artistic learning environments. these forces play a highly influential but minimally susceptible role in the system environment, with the goal of facilitating the creative consumption of urban spaces on Behesht Boulevard. As a result, they are considered the most effective and key factors (**Table 7**).

Table 7. Key Factors Influencing the Creative Consumption of Urban Spaces on Behesht Boulevard, Shiraz

Rank	Code	Factor	Direct Influence
1	Var11	Design of safe spaces for women	426
2	Var14	Attracting women's participation in decision-making	439
3	Var10	Creation of multi-purpose social spaces	437
4	Var18	Promoting awareness about women's rights	421
5	Var19	Support for women's voluntary activities	412
6	Var09	Development of local social groups	408
7	Var06	Presence of job opportunities in the artistic and creative sectors	395
8	Var08	Holding cultural activities specifically for women	394
9	Var23	Easy access to public spaces	393
10	Var20	Design of public spaces suitable for children	394
11	Var15	Promotion of a culture of using art in public spaces	392
12	Var27	Presence of accessible health and welfare facilities	392
13	Var16	Presence of cultural and artistic learning environments	389

Conclusion

This research was conducted with the aim of identifying the factors influencing the creative consumption of urban space by women on Behesht Boulevard, District 6 of Shiraz. The findings of this research showed that the overall scatter pattern of the effective factors on the creative consumption of these spaces, in terms of cross-impact analysis, indicates the state of an unstable environmental system, in which the studied factors have a complex and intermediate state of influence and susceptibility. The clustering status shows a concentrated cluster in the area of dual factors. Out of 31 drivers, 13 factors have a key influence on the status of the studied topic on Behesht Boulevard.

These results indicate that on Behesht Boulevard, women's creative consumption of urban spaces depends on a set of factors related to security, participation, welfare, and cultural promotion, which can directly influence the improvement of their quality of life and increase their social participation. Designing safe spaces for women is the first step in ensuring their active presence in the urban environment and strengthens a sense of security and peace throughout the boulevard, in a way that women's presence in social and cultural activities is accompanied by greater motivation and continuity. Attracting women into urban decision-making processes reflects their real needs in the design of public spaces and allows for the realization of responsive and multi-faceted designs.

The creation of multi-purpose social spaces along the boulevard simultaneously provides the opportunity for holding group, cultural, educational, and recreational activities, thereby strengthening social interactions among different age and gender groups. Promoting awareness about women's rights and supporting their voluntary activities helps to improve their social capabilities and strengthens women's role at the neighborhood level, making their participation in local activities sustainable. The development of local social groups and the creation of neighborhood networks increase the sense of belonging to a place and cooperation among residents, turning the boulevard into a dynamic and social environment.

Providing job opportunities in the artistic and creative sectors, especially for women, not only strengthens their economic independence but also enhances creativity and the production of cultural content in the urban environment. Holding cultural activities specifically for women creates social vitality, strengthens the neighborhood's cultural identity, and turns the boulevard into a hub for the production and distribution of local culture. Easy access to public spaces and suitable design for children ensures the well-being and safety of families and turns the boulevard into an environment that is friendly to all age groups.

Promoting a culture of using art in public spaces through urban elements and cultural and artistic programs increases the environmental appeal of the boulevard and enhances the experience of citizens. The presence of accessible health and welfare facilities improves the level of comfort and social satisfaction and makes it possible for people to stay in public spaces for longer periods. Creating cultural and artistic learning

environments along the boulevard provides informal and creativity-centered educational opportunities for all age groups and strengthens generational interaction and cultural exchange. In total, an approach that simultaneously considers security, active participation, cultural promotion, welfare, and urban creativity turns Behesht Boulevard in Shiraz into a successful example of an inclusive, responsive, and sustainable urban space. Such an approach not only improves the quality of life for residents but also continuously and sustainably strengthens social interactions, civic participation, and the cultural development of the area, making the boulevard an inspiring model for designing urban public spaces in other parts of the city.

Comparison with Related Research

An examination of the results obtained regarding women's creative consumption of urban spaces on Behesht Boulevard and their comparison with related research shows a significant alignment in the findings. For example, the study by Arushi Malhotra et al. (2023) examines women's feelings toward public spaces and emphasizes that the design of these spaces should provide a sense of belonging and security for women. These findings align with the results of the Behesht Boulevard research, where the need to design safe and multi-purpose spaces to increase women's participation was emphasized.

Similarly, the research by Kiara Rampaul et al. (2022) emphasizes the importance of incorporating gender into urban planning and states that the creation of multi-purpose social spaces can help promote women's inclusion. This topic also aligns with the results of the Behesht Boulevard research, as the lack of suitable multi-purpose spaces for women's social activities was raised as a challenge. Furthermore, other studies, such as Scarponi et al. (2023), have addressed the impact of a sense of security on women's participation in public spaces, a topic that is also clearly seen in our research results. Finally, this comparison shows that despite differences in research focus, many of the factors influencing the creative consumption of urban spaces by women are similar. This alignment in findings indicates the need for comprehensive and multi-dimensional approaches in designing urban spaces to best identify and solve women's specific needs and challenges. Research by Gqola et al. (2024) also emphasizes the importance of creating safe and suitable environments for women's presence in public spaces.

This alignment in findings indicates the need for comprehensive and multi-dimensional approaches in designing urban spaces to best identify and solve women's specific needs and challenges. Overall, these studies show that attention to the specific needs of women in the design of urban spaces not only helps improve their quality of life but can also lead to the sustainable development of cities.

Based on the results obtained from this research, the main research suggestions are presented in Table 8.

Table 8. Practical Suggestions for the Creative Consumption of Urban Space by Women on Behesht Boulevard Shiraz

Row	Action	Location	Responsible Body	Proposed Timeline
1	Design safe walking paths and suitable lighting	Behesht Boulevard, Shiraz	Municipal District and Development Organization	6-12 months
2	Form a women's advisory council for urban space planning	Behesht Boulevard, Shiraz	Municipal Social and Cultural Organization	3 months
3	Design multi-purpose squares and parks	Along Behesht Boulevard, Shiraz	Parks and Green Spaces Organization	12-18 months
4	Install educational elements and hold information campaigns	Behesht Boulevard, Shiraz	Ministry of Culture and Islamic Guidance, and NGOs	Every season
5	Create volunteer centers and facilitate women's social activities	Behesht Boulevard, Shiraz	Social Organization and NGOs	6 months
6	Support the formation of local cultural and artistic groups	Neighborhoods surrounding Behesht Boulevard, Shiraz	Local Cultural Organization and NGOs	Ongoing

Row	Action	Location	Responsible Body	Proposed Timeline
7	Hold local markets for women's artworks	Behesht Boulevard, Shiraz	Municipality and Handicrafts Union	3-6 months per period
8	Implement workshops and cultural programs specifically for women	Behesht Boulevard, Shiraz	Municipal Cultural and Artistic Organization	Every season
9	Improve walking paths and their connection to public transportation	Behesht Boulevard, Shiraz	Municipal District and Transportation Organization	6-12 months
10	Install play equipment and educational paths for children	Behesht Boulevard, Shiraz	Parks Organization and Local Educational Organization	6-9 months
11	Install artworks and hold exhibitions and music performances	Behesht Boulevard, Shiraz	Cultural and Artistic Organization and NGOs	Ongoing
12	Create restrooms, shelters, and comfortable seating	Behesht Boulevard, Shiraz	Municipal District	6-12 months
13	Launch libraries and educational workshops	Behesht Boulevard, Shiraz	Cultural Organization, NGOs, and local schools	9-12 months

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