

Journal of Urban Management and Energy Sustainability (JUMES)

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



CASE STUDY RESEARCH PAPER

Explaining the process of reviving the lost spaces of the traditional bazar of Kerman based on the role of technology

Najmeh Mehrabi¹, Reza Ahmadian^{2*}, Reza Afhami³

¹ Ph.D. Candidate, Department of Architecture, Kish Branch, Islamic Azad University, Kish Island, Iran

^{2*} Assistant Professor, Department of Urbanism, Zanjan Branch, Islamic Azad University, Zanjan, Iran

³ Associate Professor, Department of Art and Architecture, Tarbiat Modares University, Tehran, Iran

ARTICLE INFO

Article History:

Received 2024-04-15

Revised 2024-06-14

Accepted 2024-07-22

Keywords:

Revitalization, lost spaces, traditional bazars, sustainable development, Kerman.

ABSTRACT

The historical fabrics of the cities are part of the identity and cultural identity of the people and the main residents of the cities. The aim of this research is to explain the process of reviving the lost spaces of the traditional bazar of Kerman, emphasizing the role of technology. The research method is applied and in terms of approach, exploratory-explanatory and the method of conducting research is also qualitative. The statistical population of the research included architecture, tourism and cultural heritage experts, who were selected as a research sample using a targeted snowball method. In this research, to analyze the information related to the semi-structured interview, the content analysis method based on open coding, central coding and selective coding was used, based on the data theory of the foundation. The findings show that the behavior through two components of knowing the dimensions of wear and tear of lost spaces and knowing the resources and situations of the region will lead to the realization of the principles of protection and the process of revitalization and ultimately lead to sustainable development or in other words, the development of economic development, development physical and socio-historical development. The results show that the revitalization of the lost spaces of the traditional bazar of Kerman is a complex process and is strongly influenced by the realization of the principles of protection and the process of revitalization, which itself is affected by information behavior.

DOI: [10.22034/ijumes.2024.2031680.1224](https://doi.org/10.22034/ijumes.2024.2031680.1224)

Running Title: Reviving the lost spaces of the traditional bazar



NUMBER OF REFERENCES

16



NUMBER OF FIGURES

02



NUMBER OF TABLES

01

*Corresponding Author:

Email: rahmadian@gmail.com

Phone: +989123257345

ORCID: <https://orcid.org/0000-0002-2930-8856>

INTRODUCTION

The historical fabrics of the cities are considered part of the identity and cultural birth certificate of the people and the main residents of the cities; The heritage that is cultural wealth needs to be preserved in the best way, along with conscious interventions and designs, to be handed over to the next generations (Zarei, 2015). Also, preserving and reviving the cultural heritage of the past cannot have a purpose other than enriching the present culture and responding to the needs of the society today and tomorrow (Gao et al., 2019). On the other hand, the special nature of old cities and historical neighborhoods is such that it rejects any neglect of it from economic, social, cultural and physical aspects. Therefore, considering the importance of historical fabrics including traditional bazars in today's cities, the lack of serious attention to the revitalization of these works in urban planning and architecture and excessive attention to the protection of individual historical buildings instead of the complex and ancient fabric, causes their gradual destruction. becomes Pak Chesham (2015) states the necessity of revitalizing historical monuments, including traditional bazars, as follows:

- Economic necessity: revitalization reduces costs due to the attention to local construction methods and job creation for the residents around the old structures, followed by a reduction in the unemployment level in the cities. Also, due to attention to climate issues during the revitalization process, it also reduces energy consumption costs. In many areas, revitalization can boost the tourism industry and of course increase the average income of natives.
- Cultural necessity: By reviving the lost spaces, especially the traditional bazars of Iran, the hidden and found values of the village are preserved and add to the originality of the environment. Also, for the residents of the neighborhood and the city, it has recreated

memories, which will increase the sense of belonging to the place.

- Social necessity: due to paying attention to the changes made in the lost spaces, especially the traditional bazars of Iran, over time and including them in the revitalization process, it is possible to prevent social change and change the nature of the city society (Pak Cheshm, 2015).
- Environmental necessity: Due to the use of renewable and native materials, as well as paying attention to natural gifts and inviting them to the home through the installation of open and semi-open spaces and other solutions, revitalization is of particular importance.

Therefore, due to the existence of numerous historical buildings and sites including traditional bazars in the cities of the country, as well as the necessity of preserving cultural heritage in addition to saving and reforming the consumption pattern in the consumption of resources and materials, by reviving ancient collections, while making optimal use of existing resources. , it is possible to create spaces with identity and attraction, and by attracting audiences, help the economic, cultural, social and physical development of urban areas. Theories related to revitalization emerged from the second half of the 19th century and have continued until now. Various people, including architects and urban planners, have spoken about revitalization with different approaches (Daba et al., 2019). Also, various charters and statements from the Congress of Athens to the Mexico City Charter have been compiled, which discuss how to intervene in historical monuments and update them (Flamaki, 2007); All these cases show the importance and necessity of revitalization. But for many years, the old and historical urban tissues have been neglected, and the efforts of those involved and the guardians of the cities are more focused on expanding the city, creating new streets on its outskirts, and spending a lot of money to provide water, electricity and other

urban facilities in the newly constructed areas. This is why, since many years ago, improvement and modernization and in general intervention in the old urban fabric has become one of the basic issues of the planning system of countries that have a history of urbanization (Azizi, 2013). However, due to the lack of appropriate theoretical foundations in the restoration and revitalization of historical cities and neighborhoods and the principles and methods of revitalization appropriate to Iran's historical fabrics (specified model and analytical framework), most of the proposed plans for the restoration of ancient fabrics regardless of their location, They are imitations of each other. Meanwhile, nowadays, new approaches, including various technological methods, play a significant role in reviving and presenting creative and new designs in ancient works. Therefore, the need to pay attention to the revival of the lost spaces of traditional bazars of Iran in accordance with the requirements of the contemporary society is of special importance and necessity.

MATERIALS AND METHODS

Revitalization

The word "contemporary" is listed in the dictionary along with "contemporary" The suffix "ization" is also used in the word "contemporization" to mean order, order and arrangement, to harmonize and harmonize, in Dehkhoda's dictionary it means compatible and compromiser. On the other hand, as mentioned in Dehkhoda's dictionary, saz can be considered as the infinitive of making and it means the fabrication of things, and sometimes the place where they make something is inferred from it. In the first meaning, it refers to the connecting aspect between two different things along with compromise, and in the secondary meaning, it refers to the aspect of creating and making things out of nothingness. In a more detailed look, in the combination of word generator with other words, two general modes can be seen in dictionaries; The first form of the word "saz" means

"maker", "maker" and "artificer" such as knife maker, tin maker, etc. The second mode means a repairman, such as a bicycle repairman, a radio repairman, etc. As a result, revitalization in the word means harmony with the present time, in other words, modernization. According to the definitions that came for the suffix, the word revitalization has two aspects of restoration or creation (Pak Cheshm, 2015).

Every historical work, as its name implies, belongs to the past; Therefore, being past that is a suitable criterion for identifying and introducing the work, and without this precondition, the work will not have a historical nature. The belonging of a historical work to the social and cultural characteristics of the past is very important and decisive. Accordingly, if a historical work is to be considered cultural, it must have "human expression". As a result, the presence of mental recognition of past concepts makes the work valuable. This type of message is included in the cultural heritage, which gives them authenticity, and there is a distinct form between the natural work and the human heritage, such a work is the human footprint on the path of history. On this basis and since the presentation of the concept of revitalization of the historical work is dependent on the way of conveying the basic concepts and modern conditions of this time, it is necessary to present these basics. The revitalization of a historical monument is an activity during which, in addition to the physical preservation of the historical work and physical values, that work, while continuing its historical spirit, plays an appropriate role in modern social life. In this way, the historical work will have a new functional spirit that conveys its historical values to the viewer with the spirit of today's life and finds a new life. According to this definition, revitalization will be a skill to guide and adjust the change in the historical monument; Also, the purpose of this activity is to preserve the values of the past, while preparing for the accountability of today's life. Thus, with this concept, while maintaining the historical body,

parts can be separated from it and new elements can be inserted into it to meet the needs of the changed pattern of activity and the technology of reviving a historical work in today's life with a function suitable to its historical spirit. It will be, but the remarkable thing in between is the nature of the message that the effect of historical revival can convey to today's man. Mainly, it can be considered that it is difficult for today's people to truly understand the behavior of past humans (Lilian, 2013). In a general summary for the concept of revitalization, based on the lexical definition, the concept of revitalization in different fields and the opinions of thinkers in this regard, we will reach the following principles in the matter of revitalization.

- 1- Revitalization as a spontaneous act was done in the era of tradition, which today is in two general situations: A- When faced with a heritage work in order to protect and restore it, the building must be adapted to the present. B- When we want to build a new building in historical fabrics or next to a heritage work.
- 2- Masterer values in a damping effect are divided into two general categories, transtemporal or constant values and time-dependent or variable values. In the matter of revitalization, the designer also deals with the creative adaptation of the building to the contemporary values by transferring embodied transcendental values to the contemporary era. It goes without saying that the temporal values in a building are directed to the semantic and intangible dimension of the work, and the temporal values are directed to the tangible and physical dimension of the work.
- 3- Identifying patterns in revitalization is essential. In the passage of time, the co-existence of fixed and variable values in the architectural process produce patterns resulting from collective wisdom.
- 4- The revitalization of the historical monument due to the revival and modernization

of the building and the subsequent attraction of different audiences (residents, visitors, tourists, etc.) can lead to the prosperity of social, economic, cultural, etc. activities.

- 5- The target audience of the revived buildings are not only residents and local people, but also when they are erected in a historical fabric; Tourists and non-natives can also be identified as the third audience.

Therefore, according to the definition provided about urban revitalization and ancient fabric, theoretical topics, goals, theories, principles and intervention guidelines used in the initial review of theories and charters, the theoretical framework used in this research can be seen in the following cases. : At the beginning, it should be noted that factors such as the heterogeneous conditions governing the whole of a space and its different fabrical effects on the adjacent fabric, social orientations and the relativity of the customary value approaches of the society, variable factors of goals and social ideals, etc. have caused that None of the restoration theories and methods alone can answer today's urban needs and should be used in a conscious integration of them.

Technology

Considering the importance of technology as the requirements and requirements of the contemporary society for the revival of lost spaces, especially the traditional bazars of Iran, in this section, the concepts and theoretical foundations of technology and its importance in architecture and revitalization of historical buildings are discussed. The question of "the nature of technology" is now being answered in different ways. This question has a very long history. As written in most philosophy books, for the first time Greek thought has been the leader in attacking such a question and answer from a metaphysical point of view. In this way, the first theoretical and philosophical discussions about technology have been developed far from religious and mythological thinking and vital and intuitive, relying on pure Greek

philosophical thinking. Today's words technique and technology were also formed in the Greek philosophical heritage. Technology, composed of techno and logos, is a discussion about art and craft, and in its pre-philosophical Greek form, logos means talking about the existence and secret of existence, and technology in this sense means talking about the existence and secret of the existence of art (Maddpour, 2004). In the definition of technology from the perspective of Stock and Tatikunda, technology consists of components such as equipment, tools and machinery, methods used in using physical components, knowledge and methods of using these components and documentation that includes knowledge (such as specifications technical, drawings and computer software). In construction, technology is defined as a combination of materials and equipment resources, resources used in construction, construction processes, and limitations and requirements of the project. According to Simcoco's definition, the modification of "construction resources" can refer to fixed construction materials and equipment (such as steel beams, elevators, etc.) and resources used in construction (such as information and skills) or construction equipment. On the other hand, "manufacturing processes" include the methods and activities required to make a construction product. Developing countries face great challenges in mass development, absorption and use of modern technologies. Many researchers emphasize the need to improve the level of technological development in the construction industry sector in developing countries. Some believe that in developing countries, it is more economical to get technology through importing technology. The internalization of transferable technology greatly reduces the dependence of the recipient of the technology (Li-Hua, 2004).

Experts believe that, in general, there are two general ways to acquire technology: production and import; Production means the development of technology through internal research and development, and import refers

to the process through which different forms of technology enter the country and are adapted based on the needs and performance of the importing country. In a developing country, it may be difficult for the construction industry to be self-sufficient in all technological capabilities through domestic production alone, as this type of production usually involves high cost and risk. Therefore, technology transfer is a vital process that these countries must do to survive in the global community. Discussions related to technology transfer in the construction industry have generally focused on receiving (absorbing) technology during the implementation of projects in which foreign companies are present (Dupria and Gansen, 2012). Technology transfer and technology absorption process is done through many different mechanisms. Simcoco states that technology transfer or technology acquisition program includes training sections designed for local personnel at the executive, functional and managerial levels, involving local construction companies and institutions related to the construction industry, and also providing work for local workers. In a simpler definition, Simcoco states that the concept of technology transfer program emphasizes the formation of fully interconnected project teams and the organization of special temporary engineering partnerships between foreign and local companies in the field of application and implementation of international construction projects (Ghanbari, 2012).

Lost spaces of historical monuments

Carmona et al. (2008) classified lost and undefined spaces as negative spaces. He considers lost spaces to be spaces without function and remaining after surrounding developments, and undefined spaces to be undeveloped spaces that are either lost or will be redeveloped in the future. Locatiosideris mentions the lost spaces as "the gaps of the city" and classifies the remaining, lost, unused and often destroyed spaces among such spaces (Aghanjadbouzeri and Rashid Qalam, 2016). Transsik believes: instead

of emphasizing isolated and separate spaces, in urban design, emphasis should be placed on the set of urban spaces and their order and sequence as a whole unit. He considers one of the main concerns of this field in the contemporary era to be the restoration of some values and diversity - as an important element of the cities of the past - to the public life of the city and believes that the mental image of the citizens and their reaction to a space is significantly influenced by the amount and The form of enclosure is that space. Transic considers it necessary to find ways to harmonize the car with the urban landscape, without harming the quality of urban spaces, and emphasizes that although the separation of rider and pedestrian paths will be desirable in some cases, in reality, the combination of the two is inevitable in most spaces. is (Lin, 2012). Lost spaces in the city are unstructured and lost urban landscapes around high-rise towers or urban squares that have been left unused and kept away from pedestrian traffic. Lost spaces are parking lots that surround the urban core (city center) in most cities like a ring. These spaces are the lands and spaces without people around city squares, the edge of highways, underpasses and overpasses, which designers pay less attention to their maintenance and use. In general, lost spaces are unpleasant urban areas that have not established any positive relationship with the surrounding environment and users in the process of redesigning the spaces. On the other hand, these spaces provide designers with countless opportunities for urban redevelopment and creating space to rediscover many hidden resources in cities.

Case Study

Traditional bazars, squares, caravanserais and other spaces related to it can undoubtedly be considered an important factor in the historical fabric of Kerman, which itself consists of separate collections that were built at different times. The existence of these collections, each of which was built in a different period, has turned the bazar of Kerman into a museum of architectural

history, which displays the evolution of the city's architecture in different periods after Islam. In the commercial city of Kerman, which is located on the east-west and north-south trade routes of the country, the bazar was formed along the entrance gates of the city, and from the very beginning, as the center of the city, it played its main and major role in the spatial and physical structure of the city. It shows tradition. Kerman's covered bazar has two main lines that intersect each other as two intersecting streets and create a square at its crossroads.

- 1- West-East route: This route is approximately 3 kilometers long, starting from Arg Square in the west and ending at Mirzarza Kermani Street in the east. The general and major structure of this order consists of 3 bazaars and Ganj Alikhan, Vakil and Mozafari collection, which is completed by the order of less important bazars such as Saraji bazaar and...
- 2- Northern direction: The second important and main direction of Kerman bazar is the northwest to southeast direction, which starts from the northern gate of the city (Khorasan Gate) (Abu Hamed Street) and reaches Chahar Souq at its end. Later it extended along the southern line. Historically, this order and the southern order are much older than the west-east order. Many parts of this bazar have disappeared, especially in the northern parts, here we will consider its expansion from north to south. The importance and value of the northern bazar is due to two collections (Agha Ali and Ebrahim Khan), which especially Ebrahim Khan Barunagh's collection has given some importance to this line of the bazar.
- 3- South row: the oldest row of Kerman bazar is this section. The southern line of Kerman bazar starts from the southern gate of the city of "Raqabad" or "Rig Abad" and reaches Chaharsouk in the center of the bazar along a long route of 2.5 kilometers. In the past, the goods and caravans that entered the

city from the south, as well as the caravans that went from the north (Khorasan) to the south, passed through this bazaar and its gate, and as a result, they made it prosperous. Until about thirty years ago, Imam Khomeini Street (Malek), which has an east-west direction, was built, and as a result, the bazaar became two halves of the bazaar, and because of this, it lost its previous prosperity. These two half-bazars from the gate side to Chahar Souq (south to north) are: 1) Qala Mahmoud bazar; 2) The bazar of the castle square is mentioned. Figure 1 shows the location of Kerman's traditional bazars relative to each other.

Examining the theoretical foundations and background of the research shows that the theories related to revitalization emerged from the second half of the 19th century and have con-

tinued until now. Various people, including architects and urban planners, have spoken about revitalization with different approaches. Also, various charters and statements from the Congress of Athens to the Mexico City Charter have been compiled that discuss how to intervene in historical monuments and update them; All these cases show the importance and necessity of revitalization. But for many years, the old and historical urban tissues have been neglected, and the efforts of those involved and the guardians of the cities are more focused on expanding the city, creating new streets on its outskirts, and spending a lot of money to provide water, electricity and other urban facilities in the newly constructed areas. This is why, since many years ago, improvement and renovation and in general intervention in the old urban fabric has become one of the basic issues of the planning

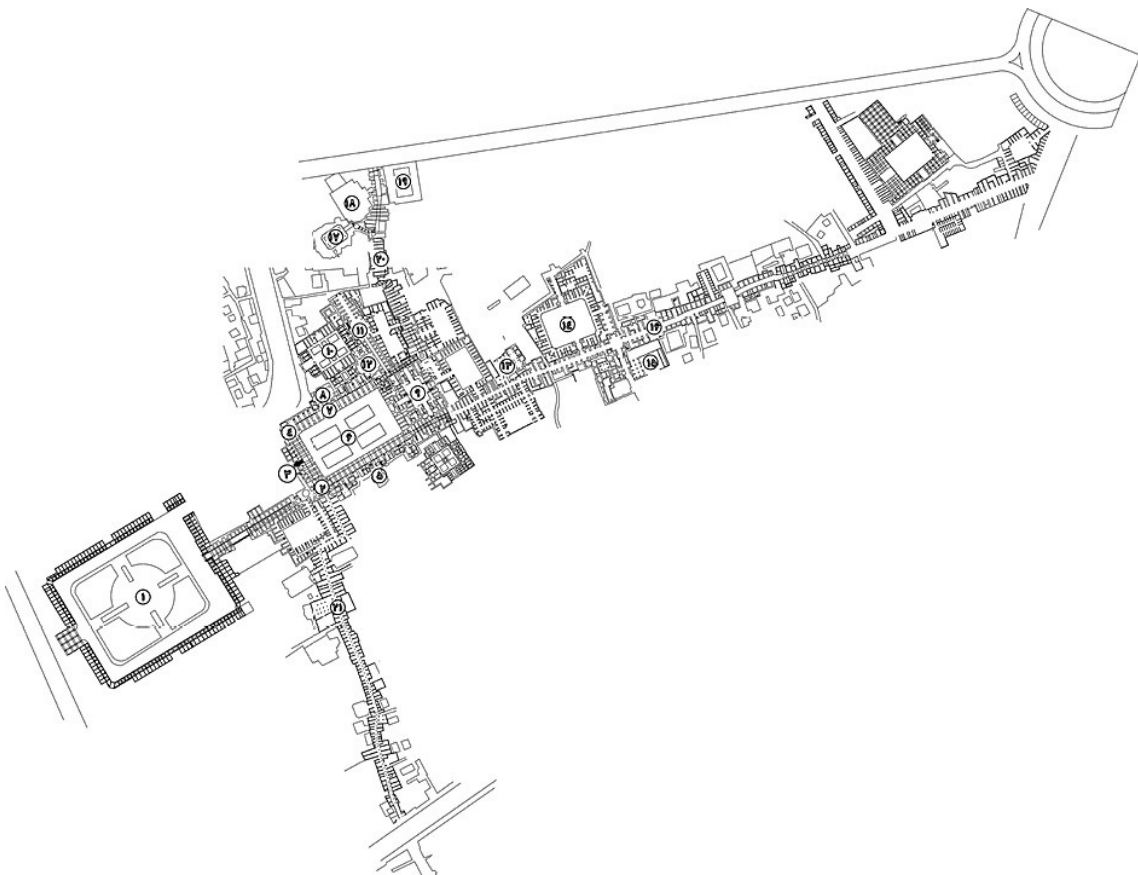


Figure 1: The location of the traditional bazars of Kerman relative to each other (Chengizi and Ahmadian, 2012)

system of countries that have a history of urbanization. However, due to the lack of appropriate theoretical foundations in the restoration and revitalization of historical cities and neighborhoods and the principles and methods of revitalization appropriate to Iran's historical fabrics (specified model and analytical framework), most of the proposed plans for the restoration of ancient fabrics regardless of their location, They are imitations of each other. Meanwhile, nowadays, new approaches, including various technological methods, play a significant role in reviving and presenting creative and new designs in ancient works. Therefore, the need to pay attention to the revival of the lost spaces of traditional bazars of Iran in accordance with the requirements of the contemporary society is of special importance and necessity.

Methodology

In this research, the revival of the lost spaces of the traditional bazars of Kerman in accordance with the requirements of the contemporary society has been discussed. According to the goal, the research method is applied and in terms of approach, exploratory-explanatory and the method of conducting the research is also qualitative. The statistical population of the research includes experts in architecture, tourism and cultural heritage. Due to the qualitative nature of the research, first pluralism was used in library resources. For this purpose, internal and external article databases and human databases were used to access resources and then interview method was used to collect data. For this reason, the purposeful snowball sampling method was used. Thus, first, an interview was conducted with the people who had the necessary expertise in the field of the research subject, and at the end they were asked to introduce others who can help the researcher in the research. For this purpose, by referring to a number of architecture, tourism and cultural heritage experts, the prototype was selected and semi-structured interviews were conducted with them. Accordingly, in this research, data collection

was carried out until the theoretical saturation of information on the subject and where the new data collected did not differ from the previously collected data. Finally, in this phase, 10 people were selected as research samples in the qualitative section. In general, in this research, to analyze the qualitative data obtained from the interview, the method of content analysis based on open coding, axial coding and selective coding was used, based on the foundational data theory. Therefore, the collected data were analyzed through theoretical coding. For this purpose, first, appropriate codes were assigned to different parts of the data. These codes are determined in the form of a concept, which is called open encryption; Then, by thinking about the different dimensions of these categories and finding the links between them, the researcher did axial coding. It should be noted that in the course of these encodings, the researcher collected data about various people, events and situations by using theoretical sampling and according to the concepts that emerged from the data, which provided a richer picture of the resulting concepts and categories. Finally, the categories were refined by selective coding, and through these processes, the theoretical framework of the research emerged. In the following, after identifying the dimensions and components as well as the relationships between the identified components and dimensions, one of the dimensions as the central class and the other dimensions and classes as the causal conditions, the background governing the phenomenon under investigation, intervening conditions, strategies and consequences are included in the model.

DISCUSSION AND FINDINGS

In the current research, the steps of the foundation's data theory are in 4 steps: studying and collecting primary data; conducting semi-structured interviews with architecture, tourism and cultural heritage experts; 3) data coding to obtain concepts, components and dimensions;

Identifying new components and establishing relationships between components and dimensions; passed Based on this, three types of coding (open, central and selective) were done. After open coding, 138 concepts totaling 660 words were extracted from the data. After open coding, axial coding was done and research categories (components) were determined. Based on this, 12 components were determined in the form of 6 dimensions. After extracting the components, in the selective coding stage, the components were categorized in the form of themes (dimensions). Table 1 presents the known components and dimensions.

In the following, the concepts and components related to each of the dimensions have been explained.

1- Information behavior (research and review): This dimension consists of 2 components of knowing the dimensions of wear and tear and regression of lost spaces and knowing the resources and situations of the region.

Knowing the dimensions of wear and tear and regression of lost spaces: In the current research, this component includes: knowing the physical dimensions, knowing the functional dimensions, knowing the legal dimensions, knowing the external and spatial dimensions,

knowing the type of rupture, identifying dangerous points, studying the relationship between buildings and open space. It is the examination of restoration plans within structural plans.

Knowing the resources and situations of the region: In the current research, this component includes: examining the location of lost spaces, examining the proximity to tourist attractions, evaluating offices, examining residential areas, recognizing the privileges and resources available in the area of lost spaces, determining capacity and talent. Competitive, providing supporting information for implementation operations, detailed engineering study for independent recognition of appropriate resources, evaluation of technology and implementation methods, accurate identification of the performance of lost spaces, study of the existing economic situation around the spaces.

2- Fulfilling the principles of protection and revitalization process: this dimension consists of a management component of revitalization operations.

Management of revitalization operations: In the current research, this component includes: gradual combination of lost spaces with their surroundings, finding suitable functions for lost spaces, increasing traffic load, providing

Table 1: Extracting the dimensions from within the components

No	component	Dimensions
1	Informational behavior (investigation)	Understanding the dimensions of wear and tear and regression of lost spaces
		Knowing the resources and situations of the region
2	Researching the principles of protection and revitalization	Management of recovery operations
3	Revival of lost spaces	Physical revitalization
		Economic revitalization
		Cultural-social revitalization
4	New approaches	Technology
5	government policy	Legislation
		Performance
6	Sustainable Development	Economic Development
		Physical development
		Socio-historical development

for the lack of parking, maintaining the social structure of the area, establishing a balance between different needs and demands, creating foundations Diverse economy, comprehensive planning, finding investors and sponsors, improving urban management, planning and managing executive operations, networking for revitalization operations, choosing the best implementation method for revitalization, support capability, project implementation capability, receiving funding for technology development, planning and resource utilization Human, management and deployment of work groups with the responsibility of planning and continuous management at the project site, choosing the best technology for revitalization.

3- Revival of lost spaces: this dimension consists of 3 components of physical revitalization, economic revitalization and cultural-social revitalization.

Physical revitalization: In the current research, this component includes: removing pollution from historical buildings, restoring historical buildings, improving the condition of streets, improving the physical parts of buildings and existing spaces, physical renovation, revitalizing a sustainable environment, adapting people's needs to buildings, changing the use pattern. The earth rotates.

Economic revitalization: In the current research, this component includes: more use of historical buildings, use of natural resources for economic purposes, economic revitalization, economic development through change of use and alternative activities, functional diversification, economic use of historical buildings, development Economic enterprises around historical buildings, strengthening the economic features of the region through strengthening the existing bazars, exploiting historical buildings as much as possible.

Cultural-social revitalization: In the current research, this component includes: environmental vitality, place attractiveness, population density, recreating memories for the residents

of the neighborhood, increasing the sense of belonging, preventing the change of the nature of the city community, creating handicraft centers, attracting the participation of local residents, improving Social relations and a sense of security.

4- New approaches: this dimension consists of a technology component.

Technology: In the current research, this component includes: physical facilities, equipment, machinery, designs, technical specifications, equations, creativity, perseverance, expertise, technology, knowledge, manpower, organization, technological capabilities, use of prefabricated materials and Factory, modern technology, hardware, software.

5-Government policies: this dimension consists of 2 components of legislation and implementation.

Legislation: In the current research, this component includes: the desire and will of the government in revitalizing historical monuments, adopting efficient managers in the field of revitalization, the possibility of using government aid, coordination of government bodies for revitalization, comprehensiveness and long-term planning, political stability of the country, political issues and security, the establishment of laws against the destruction of historical monuments.

Implementation: In the present research, this component includes: government investment, power of influential groups, property rights, seizure of land ownership pattern by the government, land occupation and preparation of public services, weakness of executive institutions, risk management, infrastructure, information and communication systems, infrastructure Energy, human resources, transportation.

6-Sustainable development: this dimension consists of 3 components of economic development, physical development and socio-historical development.

Economic development: In the current research, this component includes: direct and

indirect employment, achieving sustainable foreign exchange income, wealth adjustment, local economy development, infrastructure development, construction development, gross national product, tourism development, improving citizens' income, urban facilities. .

Physical development: In the current research, this component includes: improving the urban form, developing the urban landscape, visual quality of the city, improving access and improving environmental comfort, reducing

construction violations, reducing traffic, complying with urban planning and architectural standards, recycling and extensive use of existing land. , densification, improvement of public transportation, development of human-made environment, development of urban and suburban green space, environmental protection, waste management.

Socio-Historical Development: In the current research, this component includes: social cohesion, cultural confrontation, improving the

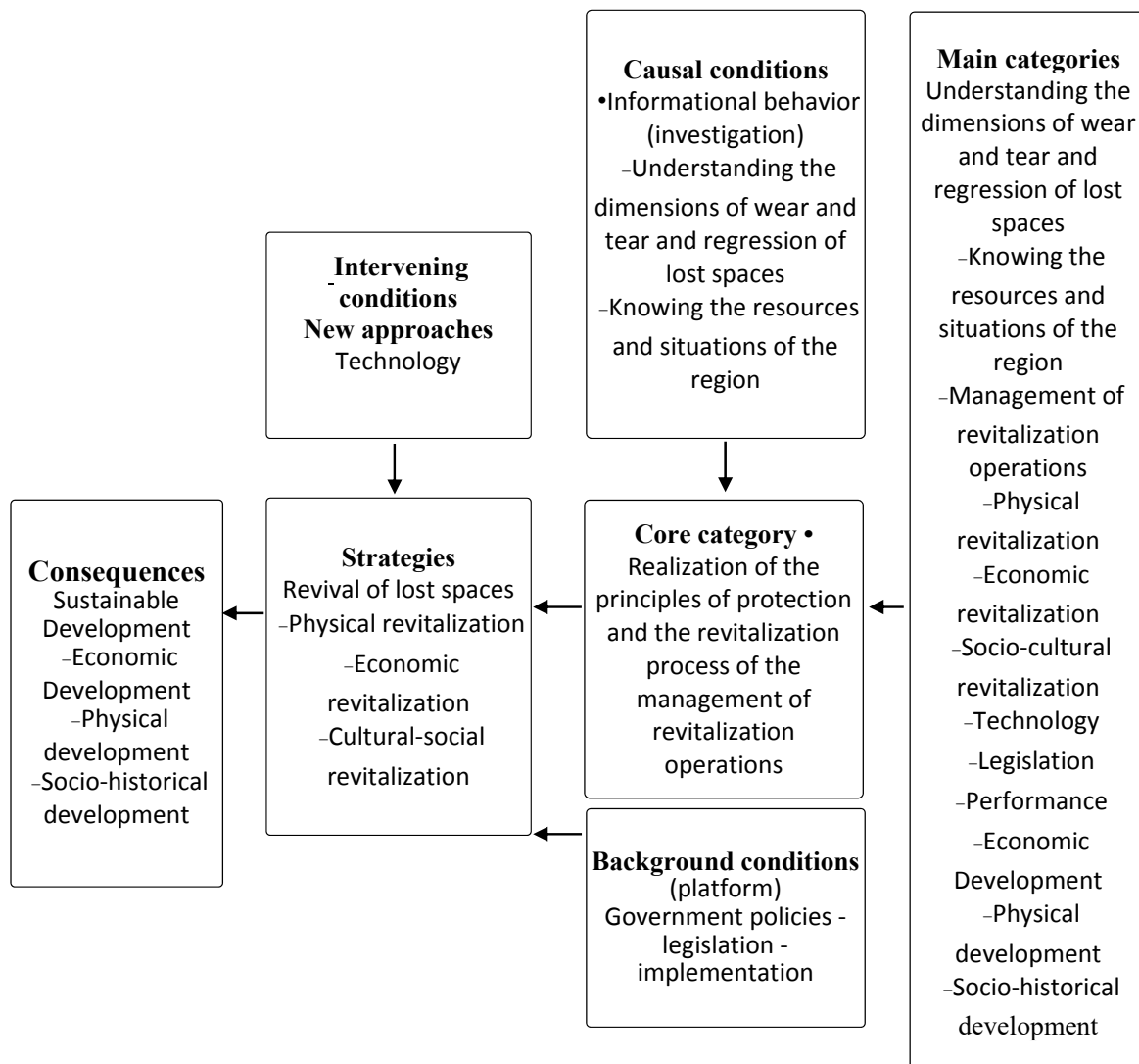


Figure 2: Proposed conceptual model at the level of dimensions and components

lives of citizens, increasing the level of security in society, increasing social responsibility, improving the environmental security of citizens, improving the environmental security of tourists, developing social relations, social justice, Environmental and cultural vitality, reducing social disruptions and crime.

After determining the dimensions, components and concepts, in order to explain the process of reviving the lost spaces of the traditional bazar of Kerman, as well as the relationships between the identified components and dimensions, the framework prescribed by the data theory of the foundation was used for modeling. The presented framework, which is a proposed conceptual model and has 12 components and 6 dimensions, was presented in Figure 2.

RESULT AND CONCLUSION

- 1- The results of the research showed that knowing the dimensions of wear and tear and regression of lost spaces was identified as one of the causal factors that affects the central factor which is the realization of the principles of protection and the process of revitalization. Therefore, it can be claimed that the first factor that affects the realization of the principles of protection and the revitalization process and causes the revitalization of lost spaces is knowing the dimensions of wear and tear of lost spaces, such as knowing the dimensions of wear and tear of lost spaces and knowing the resources and situations of the region. In this regard, Ghayaei (2013) showed that in the process of renovation, the inconsistency caused by wear and tear between the services provided by the fabric and the needs that are observed by the modern audience is resolved; Correcting this mismatch requires a change in supply or demand pattern or both. The second factor that affects the realization of the principles of protection and the process of revitalization and causes the revitalization of lost spaces is to know the resources and situations of the region, such as the location of lost spaces, to know the privileges and resources available in the range of lost spaces, to determine the competitive capacity and talent, to provide supporting information. For implementation operations, it is the evaluation of technology and implementation methods that affect the management of revitalization operations and the gradual integration of lost spaces with their surroundings. Therefore, it can be concluded that, considering the existence of many historical buildings and sites, including traditional bazars in Kerman city, as well as the necessity of preserving cultural heritage in addition to saving and modifying the consumption pattern in the consumption of resources and materials, by reviving ancient collections, while making optimal use of them. From the available resources, it is possible to create spaces with identity and attraction, and by attracting audiences, we can help the economic, cultural, social and physical development of urban areas.
- 2- The analysis of the conducted interviews showed that new approaches including physical facilities, equipment, machinery, designs, technical specifications, equations, creativity, perseverance, expertise, technology, knowledge, human resources, organization, technological capabilities, use of prefabricated materials and factory, modern technology, hardware, software, are among the most important intervening factors that can influence the revival of the lost spaces of Kerman's traditional bazars. The results showed that technology is the most important influencing factor that exists in a common and inclusive way in the world and has caused problems in architecture, especially revitalization. In this regard, Ali Beiginejad et al. (2013). The role of digital technology in the intelligentization of architectural spaces, the first international congress of new horizons in architecture and urban planning. The

results also showed that the revitalization of lost spaces through components such as: removing pollution from historical buildings, restoring historical buildings, improving the condition of streets, physical renovation, revitalizing a sustainable environment, making more use of historical buildings, using natural resources for economic purposes. , the development of economic enterprises around historical monuments, environmental vitality, increasing the sense of belonging, preventing the change of the nature of the city society, attracting the participation of local residents and a sense of security, causes sustainable economic, physical and socio-historical development. Therefore, it can be concluded that the revitalization of historical tissues, in addition to improvement, prevents its emptying, provides proper services, provides facilities, strengthens infrastructure, preserves and promotes the identity and values of urban planning and traditional architecture, reduces the per capita cost of living in the city by increasing density and development. It becomes endogenous and improves the quality of the image and urban landscape. In this regard, Daba et al. (2019) showed that by reviving ancient collections, while making optimal use of existing resources, it is possible to create spaces with identity and attraction, and through this way, by attracting audiences, to economic and cultural development. helped the social and physical development of urban areas. According to the obtained results, we can suggest:

- 3- Detailed study of the existing situation, by specialists in urban planning, geography, architecture, civil engineering, social sciences, economics, history, archeology, etc., to reach the desired situation.
- 4- Forming a skilled team to organize the bazar, old fabric and other physical elements.
- 5- Compilation of city laws clearly, with full details, for the proper use of urban uses by the citizens of the old fabric.
- 6- Paying attention to the principle of popular participation and self-help of bazarers and citizens in arranging the living areas and taking care of their wishes, based on monitoring the reconstruction, restoration, renovation and improvement of the bazar and the old fabric.
- 7- In the designs related to the central or inner part of the city, it is important to note that the inner part or the old part of the city is a product of continuous and continuous formation that occurred over several centuries, and is suffering from many problems. The complex of this sector is mainly built and its free land for design is low. The experience of building construction quality shows that buildings can be divided into old, valuable and healthy, restored, demolished, dilapidated and newly built. The damaged and destroyed parts are increasing in the form of scattered or continuous spots. Incorrect planning and design policies that have been adopted for the entire city complex in most of the comprehensive plans, not only did not strengthen this sector, but also accelerated its wear and tear.

REFERENCES

- Aganjadbouzari, conductor; Rashid Qalam, Mehrnaz. (2016). *Designing the lost space under urban bridges using place-making features (case example of Tabriz's Azarabadi Bridge)*, 5th International Congress on Civil Engineering, Architecture and Urban Development.
- Clear eyes, eyelashes. (2015). *Redesigning rural housing with an emphasis on modernizing the body building process (case study: Benadkokdize village, Taft, Yazd)*, Master of Architecture thesis, Faculty of Art and Architecture, Yazd University.
- Hanachi, Parviz and Shayan, Hamidreza and Kamelnia, Hamed and Mahdoinejad, Mohammad Javad (2006) *Comparative study of restoration experiences in the world and Iran with a special look at the historical fabric of Yazd city*, Yazd City Cultural Heritage Base, Tehran: Soban Noor.

- Zarei, Saeeda. (2015). *qualitative contemporization of spatial relationship patterns of traditional Kashan housing with the space syntax method; Case example: design of a residential building with a yard in Kashan*, master's thesis in architecture, Tarbiat Modares University, Faculty of Arts.
- Azizi, Mohammad Mehdi (2013). *The evolution of intervention policies in ancient urban fabrics in Iran*, *Fine Art Journal*, No. 7.
- Ali Beiginejad, Muhaddith; Afemi, Reza; Moini, Mahdia. (2013). *The role of digital technology in the intelligentization of architectural spaces, the first international congress of new horizons in architecture and urban planning*.
- Ghayi, Mohammad Hadi. (1390). *Revitalization (modernization) of the historical neighborhood of Shah Kerman Bazaar based on the successful experiences of urban restoration*, bachelor's thesis on urban planning - urban and regional planning, Tehran University of Art, Faculty of Art and Architecture.
- Flamaki, Mohammad Mansour. (1387). *Comparative study of the historical fabrics of 8 sample cities in the country and the effects of urban development plans, especially improvement and urban development plans on them*" *Urban Planning and Architecture Study and Research Center, Research and Education Vice-Chancellor*.
- Ghanbari, Javed. (2012). *Explaining the strategy of development and transfer of architectural technology with an emphasis on contemporary approaches to native architecture (case example: the region of the northern border of the Persian Gulf)*, doctoral dissertation in architecture, Faculty of Art and Architecture, Tarbiat Modares University.
- Lilian, Mohammadreza. (2013). *Clarifying the criteria of the modernization process of residential buildings with historical and cultural value in Iran (case example: buildings with old residential functions)*, PhD thesis of Architecture, Tarbiat Modares University, Faculty of Arts and Architecture.
- Maddpour, Mohammad. (1384). *The nature of technology and technological art: a perspective on information technology*. Tehran, Surah Mehr Publications (Institute of Islamic Culture and Art).
- Daba, Sintayehu D., Tyagi, Priyanka., Brown-Guedira, Gina., Mohammadi, Mohsen. (2019). *Genome-wide association study in historical and contemporary U.S. winter wheats identifies height-reducing loci*, *The Crop Journal*, In press, corrected proof, Available online 23.October 2019
- Devepriya, K. A. K., and Gaensan, S. (2012). *Technology Transfer through Subcontracting -in Developing Countries*. *Building Research and Information*, Volume 30, Pp. 171-182.
- Gao, Ling-ling., Lu, Hong., Leap, Nicky., Homer, Caroline. (2019). *A review of midwifery in mainland China: Contemporary developments within historical, economic and sociopolitical fabrics*, *Women and Birth*, Volume 32, Issue 2, April 2019, Pages 279-283.
- Li-Hua, R. (2004). *Technology and Knowledge Transfer in China*. Ashgate Publishing Limited, England and USA.
- Lin, Yao. (2012). *Identifying Perceptions Of The Creative Class Regarding Lost Space In Downtown Dallas*. December 2012.

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.



HOW TO CITE THIS ARTICLE

Mehrabi, N., Ahmadian, R., & Eteessam, I. (2024). Explaining the process of reviving the lost spaces of the traditional bazaar of Kerman based on the role of technology. *International Journal of Urban Management and Energy Sustainability*, (), -.

DOI: [10.22034/ijumes.2024.2031680.1224](https://doi.org/10.22034/ijumes.2024.2031680.1224)

