



A Contrastive Analysis of Urban Resilience Theories in Urban Planning and Urban Design

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Abstract

The present research investigates the resilience and its theories from the perspective of urban design and urban planning. Resilience is not only an increase in the power of tolerance and adaptability of an individual in dealing with the problem, but also what is being discussed in the planning of the world. It is of great importance because it can easily affect the life and durability of a city. Resilience is that the cities gain more capability in such a way that they can respond in the shortest time to the crises and show the best response. The data collection tool in the research is the study of documents and literature texts and valid papers in the field of resilience, and the method of analysis is based on content analysis and comparative studies. The research findings show that the theory of resilience and the spatial theory are content-based, explanatory, normative, structural and functional. Also, social resilience theory is a prescriptive, procedural, normative theory, based on multilevel, democratic and social programming. The approach is to resonate the place where the urban design has a social problem that is characterized by urban planning. It is coming.

Keyword: *Urban Resilience, Urban Planning, Urban Design*

Introduction

Today, the attitudes and theories on disaster management and sustainable development seek to create resilient societies against natural and abnormal hazards. Hence, according to many researchers, resilience is one of the most important issues for sustainability. The concept of resilience was introduced for the first time according to Helling's view in 1973. Resilience is a measure of the system's ability to absorb ecological and natural changes, while still having the same resistance. Following this, Marilyn Speth et al. (2009), largely entered the psychology, economics and social sciences into this area of consideration. In one dictionary, it is defined as the ability to retrieve or improve fast, change, float and elasticity (Collins Dictionary, 2016). From Cutter's (2008) perspective, resilience has different ecological, social, economic, organizational, physical-infrastructure and social qualities. Carpenter et al. (2001) define resilience in a scientific community. Based on this, desirable indicators for measuring resilience are suggested to be quadrupled social, economic, institutional and physical-environmental dimensions. In this approach, the program development and management from bottom to top is based on empowerment, emphasizing human resources with the local community approach to provide strategies for

improving and empowering local urban communities, and promote better-performing community-based monitoring by governments. Especially, in the event of a natural and unpleasant disaster, the use of restored textures is stressed. (Yu et al., 2016: 21). In this approach, it is believed that pure attention to the physical elements of society, without raising the thresholds for the tolerance of its capacities will not suffice. From the point of view of Rafiyan et al. (2011), a local community must, in an unpredictable incident, be so resilient and resistant that it can quickly return to its pre-crash conditions in a short period of time, with the help of its powerful internal forces and the participation of elements outside the community (Ase, 2017). The present study addresses the question of how to contrastively compare theories in urban planning and urban design.

2. Literature Review

2.1 Resilience Terminology

The term "Resilience" in the dictionary of Dehkhoda consists of two words, "warp" and "arab", which means perseverance, endurance, patience, skepticism, durability and resistance, and in the past, it has been called "waving" and is now "passion". Resilience is equivalent to the English word Resiliency. Resilience meaning is elasticity, reciprocity, and reactionary, but resiliency in mental health texts is equivalent to a

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caliber. It has been taken from physics and resiliency is the rebirth of the rebound. In fact, resilient people are able to come back. They have the ability to survive and even overcome disadvantages. Resilience can make a person victoriously go through horrific events and improve his/her social, educational and professional qualifications; despite being exposed to extreme tensions. Resilience is a kind of attribute that varies from person to person and can grow over time. It is often referred to as “return to the past”. In the Latin sense, the word *Resilio* means “skip to the past”. This term was first introduced as an ecological concept by Helling in 1973 (Dadashpour and Adali, 2015).

2.2. Investigating urban planning theories on resilience

What is today in the context of world planning is the resilience of cities, which is very important because it can easily affect the life and durability of a city. Resilience is that the cities gain more capability in such a way that they can respond in the shortest time to the crises and show the best response. Resilience is a topic that can bridge the issues of urban management. Resilience has emerged as a concept in relation to cities and planning since the 1990s in response to environmental threats and the establishment of social and institutional frameworks to show that cities in a complex and unpredictable situation must be able to function sustainably and stand against resistant problems. What is important in urban planning is paying attention to the physical changes of the city. The availability of human resources and, above all, rich sources of information, can lead the city towards better services, in which the expectations of people and influential groups are met. In this way, the goals of sustainability and urban well-being are guaranteed (Bookkeeping and Rasaiipour, 2018: 2). One of the benefits of planning for urban resilience is that there is no need to focus on the specific pattern of urban form with urban development. This flexibility allows cities and development plans to have the power of accountability and adaptability, given the unique conditions of the city. This leads to intellectual creativity for thinking different ways of gaining resilience without being restricted in a particular context. Resilience approaches are used to understand the dynamical systems, the interaction between individuals and the environment, how communities are adapted to natural hazards and accidents, and to explain social dimensions and to understand the issues of resource dependence.

2.2.1 Resilience and Its Dimensions

Despite more than three decades of research on resilience, this concept still lacks a comprehensive and operational understanding of various scientific areas. Several definitions of diversity have been expressed in terms of resonance, and the concept of resonance in

various sciences has been taken into account in various forms. Many existing contradictions emerge from the residual meaning of the cognitive tendencies, methodological ways, fundamental conceptual differences, as well as the perspectives that focus on research in ecological, social, or a combination of both systems. It should be noted that the topic of restoration covers a wide range of urban systems and human societies. These different dimensions in the study of resilience can be attributed to two factors: one of the broad issues involved with resonating lies in the field of accident management, and the other is the time interval both before the accident and the period of preparation, and also implementing the necessary measures to reduce the risk. Resonance is a dimension which has a variety of types that require different types of measurements (Rafiean et al., 2010: 11). Urban Conservation has four main axes, dynamic metabolic flows (including diversity and conservation of ecosystems, production cycles, consumption and supply of bio-economic resources and soft and hard infrastructure), urban governance and institutional structures and organizations that bring justice to the city (Social flows). Demographic characteristics, social and human capital, and social inequalities (and artifacts) are environmental physical characteristics which relate to natural environments and ecosystems (Rafiean et al., 2010: 12). Different sciences such as psychology, engineering, management and economics have provided different definitions of resilience. Resiliency means the ability of the individual, family, society, country and systems to reduce the effects of shocks and pressures, thereby reducing chronic vulnerability and facilitating comprehensive growth in engineering. For structures such as bridges and skyscrapers, resiliency is defined as the capacity for rapid return after stress, tolerance for more stress, and reduced destruction through a given amount of stress (Malki et al., 2017: 4).

2.2.2 Resilient City

Resilient cities are cities ready in unexpected situations. A resilient city responds quickly, adjusts if needed, and continues to work despite bad and uncomfortable conditions. Resilience in the long run requires more ability to reverse the shock of the system and needs to be able to adapt to delicate changes over time and development of the city in a way that is sustainable in the long run. Resilient cities have fewer buildings, and fewer electrical currents occur. Fewer families are at risk of being exposed to various types of pollution and commercial centers. Also, fewer deaths and injuries occur, and there is less inconsistency and communication problems. A Resilient city is a city with the following components: (figure 2)

2.3 Investigating Urban Design Theories on Resilience

The recognition of the principles of resilient urban design, without recognizing the concept and dimensions of urban design, is not possible. Resilience in urban design is an idea that is designed with less vulnerability and more flexibility. The idea of the reconstruction of Chicago and San Francisco after the great fire of the nineteenth century, Berlin and Beirut after the twentieth century, and the Neo-Warleans in the face of the Katrina storm in the early twenty-first century, was with a movement in the cities of New York, Istanbul and Mumbai, with a slogan towards the resilient city. Social currents often occur in a place and have a spatial shape and texture. Therefore, it can be assumed that social resonance as one of the main dimensions of resilience and the theory of location are directly related to one another, and urban design as a science. And the location of the place in this regard is of key importance. In this context, social stabilization can be improved through urban design and social design (Partoy et al., 2016: 4). Resilient Urban Design Dimensions

Activity

Activities in the sustainable location model are against the occurrence of accidents caused by the features of the site, such as land use, access, and movement. Resilience leads to increased flexibility and reduced vulnerability in the land use system, which prevents the development and spread of areas at risk of disaster, with the identification of places of high risk. Residential and commercial areas should be removed from these spaces, and governments should be properly managed in terms of user mixing, to reduce damages. On the one hand, turning hazardous areas into open and green spaces reduces the city's vulnerability to disasters, because the availability of open and green spaces leads to more accommodate urban conglomerates during an accident. In the design stage, factors such as design and construction in safe areas, distribution of green and open spaces with diverse applications, user mixing with the elimination of maladaptive applications in different parts of the site, lack of concentration of adsorbent applications in areas prone to risk (based on site crash rates), and meeting the daily living needs of the community to increase the quality of life, providing multiple green and open spaces in the context of convenient public use (such as educational applications, relief and management centers), factories and burned tanks, will contribute to the achievement of resilience (Gross, 2008: 21).

Movement and Access

The communication network in the city is one of the key elements of urban skeletons and has a significant role in increasing flexibility and reducing the vulnerability of the disaster. On the one hand, the relational communication system has a direct relationship with

escape, search, relief and rescue. On the other hand, land use planning in disastrous areas is also effective in designing a communication network. Therefore, in addition to identifying important issues, the way of communication between the users, the volume of communication, the frequency of communication, the speed of communication, the design of the network are important factors for dealing with the disaster. The flexibility of access and movement through increasing the permeability of urban and substitute networks during a disaster, along with appropriate hierarchies for passages, create legible skeletons adapted to the network of urban access and mobility. The establishment of fluid flow of people and services in the context of risk due to existence of green and open spaces, planning of out-of-town communication facilities in disastrous situations, determining the appropriate width and preventing obstructions due to the collapse of the adjacent buildings and reducing the traffic flow during the accident of the plurality of fields and urban spaces (for the rapid service of emergency evacuation), proper enclosure in the passageways and the connection of the buildings with the neighboring passageways, the safety of pedestrians, in particular, the retrofitting of nearby adjacent passages and the places of public transportation networks during a crash are issues worthy of consideration (Gross, 2008: 21).

Physical Dimension

The relationship between the components of the city's body with different resilient dimensions, based on the effect of the physical form of the city, height and density of buildings, urban landscape, and vegetation affect survival from accidents. The skeletal structure of the public spaces and the persistence of the constant flow of the people, services and information, along with the appropriate urban spaces alongside open spaces, form the urban constituent parts that can play an important role in the resilience of urban skeletons and legible spatial skeletons, despite the prominent and safe urban spaces. In urban context, to facilitate movement at the time of the accident, providing open spaces (in the context of empty) in case of incident, for the possibility of escape, temporary shelter and accommodation, providing high levels of green space in urban fabric and anticipating multipurpose open spaces to provide emergency accommodation, distribution of food and services, providing adequate security for roads for the possibility of accidental dismantling, and the design and implementation of safe and rugged enclosures, will help the skeletal system of public spaces and resilient areas in case of disaster (Rafiean et al., 2010: 12). The resilience of the skeletal space of the city is also closely intertwined with the resilience of the citizens' subjective viewpoint; the direction of the main theme of the city's image in the event of an accident helps to choose the safest escape route. Therefore, the index of readability of Lynch elements of urban spatial growth, the

increasing number of sign elements, landscapes and observations, urban neighborhoods, textures permeability, and the trainings on escape routes before the occurrence of the accident, can enhance the mental perspective of individuals (Lak, 2016: 11).

Urban and Resilient Landscape

In studying the urban aspect, urban landscape is reshaped. By reducing the visually impaired landscape of Shahrzard through the readability of Lynch elements such as gates, signs and walls of valuable, urban texture is obtained. Increasing and indexing the inputs of texture, and urban signs increase orientation and ability and are used in relief procedures. On the other hand, maintaining strategic visions and widespread visibility in the city will help to increase the urban landscape resilience in order to facilitate the direction of the people to find a safe route. Also, the restoration of urban walls and physical elements in urban landscape, such as prominences, balconies, and additional elements and signs, are also ways of creating objective restitution (LaLone, 2012: 5).

3. Research Methodology

The methodology of the research is qualitative in terms of its purpose. The data collection tool is a documentary review of valid texts and materials in the field of resilience. The analysis method of this case study is based on content analysis and a comparison between the two theories. Content analysis is a possibility for systematic analysis of information and deeper and more complex comments. And it usually leads to more accurate findings. It is also a kind of examination of the documents that the researcher or other persons may have been able to collect. However, the analysis is carried out by the researcher. For this purpose, the theoretical and empirical texts are reviewed, and the main categories of the model are identified.

4. Introducing A Theory from the Perspective of Urban Planning and Urban Design

4.1 Spatial Theory in Resilience Measurement

The urban spatial resonance imaging indicators are directly related to the physical and environmental dimensions of the urban system and are related to the main components of the spatial organization of the city. The spatial organization of the city is the spatial dimension of urban spatialization, which depends on the various and reciprocal relationships of all forces and agents in the city. These factors can include market forces, activities, urban infrastructure and various services that have always had complex and interrelated relationships (Ziari et al., 2013). The purpose of the spatial organization is a network whose elements are urban mixed centers of trade, administration, culture, etc. on the whole scale of the city, its regions and areas, important communication axes (main roads and metro

lines), important functional axes (on a city scale and its regions and districts). So, the city's spatial organization includes the main elements of the city's construction: the main roads, main buildings of the city, the main services in the city's functional scale and the public and green spaces and open spaces. The city's spatial organization is based on the definitions and explanations provided by the main components of the space organization on a city scale, based on the review of theoretical literature and the classification of urban landscaping indicators from the perspective of the ecologist, Jack Ahrens in 2012. He numbered some urban design and planning indicators for urban regeneration, including redundancy, biodiversity, multi-functionality. they are consistent with the components of the urban spatial organization and can be applied by urban designers for urban application (Garah et al., 2017: 4). He continues to emphasize the combination of ecological and urban principles to achieve urban alleviation (Ahren, 2012: 6) and use these indicators in the measurement of spatial disturbance. Urban space is proposed based on the spatial organization of the city with the chariot of two patterns of structure and performance of the urban system. In this regard, the operational definition of indicators includes measurable data for each indicator, and, in particular, the challenges posed by the disassembly. The index of diversity of measurable data has often been mentioned in theoretical literature as a key feature of urban alleviation (Suarez et al., 2016: 11). Variation is essentially one of the main features of urban design literature, because different types of land use as well as urban geometry lead to vitality, a healthy lifestyle and even economic attractiveness in the city (Bentley et al., 2010 Jacobs, 2007; Cremona, 2011). The main functional axes in the urban spatial organization include all types of urban functions vertically and horizontally along the edges of the main streets. Multifunctional urban spaces enhance the diversity characteristic that is needed to absorb disturbance and recovery time. Diversity in urban regeneration can be explored in two areas. One of the spatial variations associated with the spatial distribution of urban structural elements is the equal access of people to basic services at the city level and to reduce the likelihood that the whole system will be affected by a single disruption, and the other is the diversity of functions that apply to those uses. The city is a mixture of green and open spaces, including gardens and linear parks or neighborhoods that lead to saving the city's life and increasing the urban intensity. The relationship between this index and other spatial components of the city, such as the main communication routes and urban areas, is controversial. This means that the variety of communication paths means a variety of roads in the urban area, which leads to the formation of a network of sub-routes leading to the main rout. This hierarchical network has its own way of reducing urban alleviation (Suarez et al., 2016: 11).

4.1.1 Strength Index and Measurable Data

This index is a measure of the resistance of buildings, roads, and urban physical elements, which means the ability of a system to withstand changes and disruptions without system degradation or loss of performance, which is also called a sustainability index. To be strong, on the one hand, is similar to the traditional concept of engineering resonance and the concept of "backward" and represents a process for maintaining the status quo. On the other hand, it means "moving forward" (Doyon, 2016: 13). In this case, investigating the resistance and stability of the urban area before the occurrence of the event is possible by the "continuous monitoring" tool to predict the resistance of the main urban elements (Qarahi et al., 1396: 10). Sustainable urban areas are identified based on the indicators approved by the High Council of Architecture and Urban Planning of Iran in the Ministry of Roads and Urban Development, which include three indicators of permeability, stability and lack of separation sections with an area of less than 200 square meters in 50 percent of buildings of one urban area. Measurement of measurable data defining spatial and temporal scales is one of the most important issues for the operational definition of the indicator as well as identifying measurable data. The choice of urban spatial organization is essentially important for the spatial scale of the city (Gerai et al., 1396: 10).

4.2. The Theory of Social Resilience

4.2.1 Theoretical Foundations of Social Resilience

In a study on new approaches to resilience and social vulnerability Bokley (2007) points to factors that support individuals, families, groups and communities in reducing disaster effects and believes that the set of these factors increases the level of social resilience at the community level. Social resilience is defined as the ability of a community to revert back and use its own resources for retrieval. Social resilience is relying on internal resources to manage demands, challenges, and changes faced during a catastrophic period. The concept of staggering evolved step by step and directed attentions from its initial ecological concept to the ecological social concept and then to the social concept. All definitions of social resilience take into account the capacities of individuals, organizations, or communities to tolerate, attract, adapt, and transform against social threats of any kind (Ainuddin, 2013: 26). Social resilience has different stages and significantly increases the durability and solidity of the community. The level of flexibility of different groups varies from one community to the next, and their response is different in critical cases. By comparing different communities, we conclude that factors such as identity that create different responses in different societies with similar disasters, cause different levels of resilience in the community. The effects may be high in a vulnerable society, but social communication is so strong that returning from the damaged state occurs as soon as

possible, so in this case, despite high vulnerability, the resilience is high (Shaw et al., 2014: 194). Efforts for social resilience can be achieved by improving living standards through increasing income, education, medical care, health, housing, employment, legal rights, crime prevention, the existence of morality in the local community and desirable population density, the resilience of buildings to risks and disasters, quality of life or the ability to live in local communities. Maintaining values, local heritage, urban identity, urban memories, and education are also other components of quality of life that lead to maintaining the sense of belonging to the place and restoring the spirit of life (Lak, 2013: 10). A resilient community contributes to upgrading its popular and organizational potentials, while there are severe shocks from accidents and prevents them from becoming a crisis, and quickly provides a precondition for returning back to the conditions before the shock, and by strengthening the capabilities and future capacities it will prepare itself to withstand more severe shocks caused by future crises. One of the benefits of planning for urban regeneration is that there is no need to focus on a particular pattern of urban form or urban development, because the resilient city makes it possible, given the unique conditions of cities and development plans, to respond to the crises. This leads to intellectual creativity to think different ways of gaining resilience without being restricted in a particular context (Caputo, 2015: 2). Martin Brin and Marty Andr ez described the main characteristics of a resilient system in three ways: adaptability, self-regulation and ability to reshape, which is the ability to adapt to a particular system to effectively deal with possible injuries. Given the characteristics of a particular system, the system generally focuses on smaller time scales. The self-regulation process involves organizing the internal system without directing or managing an external source. Finally, the ability to transform a system to reorganize in a new system refers to when that system fails to cope with the form (Agudelo & Claudia, 2012: 14).

4.2.2 Analyzing the Functions of Resilient Societies

According to the characteristics mentioned above, a local community is considered to be an actuator system that has all the necessary features to become a resilient system. The system is composed of components that are organized in a continuous interaction with a set of interrelated components. The functions of a local system, depending on the circumstances, adapt to a set of human, cultural, economic, and, ultimately, spatial relationships that make up a neighborhood or city. The local community's resilience to crises appears to be resilience to earthquakes, floods, warfare and natural disasters. Thus, it can be said that in the context of a sustainable society, a resilient and secure society is built up against disasters, but this resonance should not be

confined to the dimensions of the epithelium and the physical signs of a system, but it should be manifested in the vital arteries of the building and other physical structures. And also, if human societies ignore cultural and social dimensions, a vibrating society can be emerged. So, it can be understood that resilience makes sense by preserving and enhancing the cultural roots and attitudes of a local community. A resilient local community is in fact a model and a desirable set of goals should be designed for achieving the model and the required framework needed for the model to function (Hosseini, 2013: 1). In order to achieve a resilient society, only improving the infrastructure of a community, coding and locating them properly, designing and planning land use, and improving the physical body is not enough, because it is a matter of scientific fact. Safe and robust construction with observing the correct principles of design and construction is not possible without social, cultural and economic resilience. Therefore, creating a resilient community is, in fact, a viable and sustainable investment for building a solid and sustainable society. The crises are the product of interactions between man and the environment, and because this interaction is immutable, the crises are also endless. However, the severity of disasters' effects can be reduced. Ownership patterns, economic problems, population growth, lack of land control and utilization, lack of insurance, urban over-development, marginalization, inadequate social structure, failure to observe negative aspects of construction, including areas of crisis occurrence in the current situation, combined with natural phenomena such as earthquakes and floods, cause the formation of blood cells in communities. Therefore, it can be accepted that restoration of communities and promotion of their resilience in the light of the restoration of social structures will be scientific. The goals of the resilient community can be summarized as follows:

- The basic role should be the responsibility of local and national governments;
- Special attention to local communities that should improve the quality of life and provide facilities;
- The importance of green spaces and open spaces of the neighborhood;
- The provision and consideration of the main human rights;
- Minimizing the costs of normal and abnormal natural disasters;
- Promoting social participation and empowering people and local governments in building a safe and resilient city;
- Enhancing the capabilities of people and communities in the post-crisis management process;
- Increasing the sense of friendship and some kind of resurgence in societies in the event of unforeseen circumstances;

- Integration of traditional and indigenous culture with new demands to promote local community resilience; In order to promote local community resilience, it is important to pay attention to several factors, including the role of governments and official institutions (Maleki et al., 2017: 4).

- Local empowerment and upgrading from bottom to top

National resilience is generally the result of citizens' capabilities at all levels in terms of planning, preparedness for response, reconstruction, and ultimately adaptation to new conditions, under the protection of the public and private sectors. Intervention from the bottom, i.e. citizens' participation in promoting the resettlement of their community, is indispensable because the local conditions are not the same across the country, and the history, geography, demography, culture and infrastructure of each region are different from each other. In addition, each society faces its own risks and crises. Some general measures lead to the resilience of various communities:

- Intervention of all people in the planning and policy process
- Linking the capabilities and benefits of the public and private sector to promote resilience
- Improving the quality of public and private sectors' services and infrastructure (such as education and health)
- Informing, communicating social networks and promoting a resilient culture
- Organizing citizens, groups and families to prepare for crisis
- Approving proper land use regulations
- Economic facilities, including the amount and variety of these facilities and access to them
- Social program including organizational and interpersonal relationships, sense of community-building within the city, personal involvement of citizens in social affairs, information on and communication with trusted sources
- The competence and ability of the community, including individual skills

Some factors are also successful in curbing the crisis, including

- Facilities
- Communication
- Solidarity
- Commitment and shared values
- Skills that help the community to return from critical to normal situations (Poorheidari and Valde Beigi, 2016: 33).

Comparison of Regional Planning, Urban Planning and Urban Design in the form of criteria and sub-criteria based on the following diagram: (figure3)

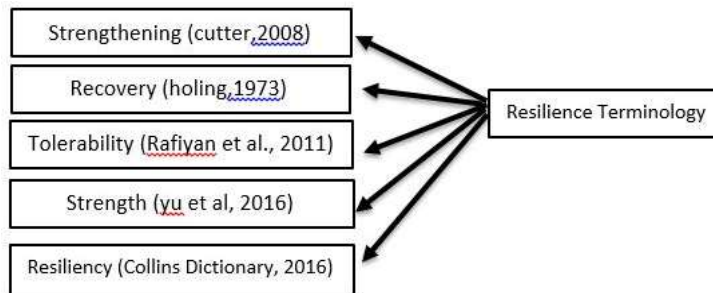


Fig. 1 Resilience Terminology

Table 1. The Dimensions of Resilience (Abhas et al, 2013:22; Behtash & et al, 2013: 37; Rezaie, 2013: 27, Ahmed, 2016)

Social resilience	It refers to the capacity of a community to cope with disruptions and changes, and adapts the ability of communities to self-organize, regulate tensions, and increase their capacity for learning. This resembles the population composition of social resilience and gender, age, race, disability, population, social status are dependent on the economy and social capital, although the quantitative expression of social capital (which is based on the sense of community and the ability of the citizens and their sense of belonging to the place) is difficult.
Substructure resilience	Reducing the vulnerability of constructed structures such as buildings and transportation systems, health facilities, building vulnerabilities Resilience to the underlying. With regard to the risks, urban infrastructure, vital centers and arches, and access to roads in times of crisis and after-crisis logistics, it is generally possible to underestimate the ability of a society to cope with the crisis and rebuild the community.
Institutional resilience	The capacity of communities to reduce risk is defined through the establishment of social institutional links within the community; some kind of institutional resilience is associated with risk reduction, planning, and experience of accidents before.
Economic resilience	Macroeconomic interconnectedness, occupational capacities of individuals with regard to the capacity of dependent institutions, economic diversification of society in different fields, such as employment, number of businesses and the ability to respond to post-crisis measures, dynamics, income and ownership.

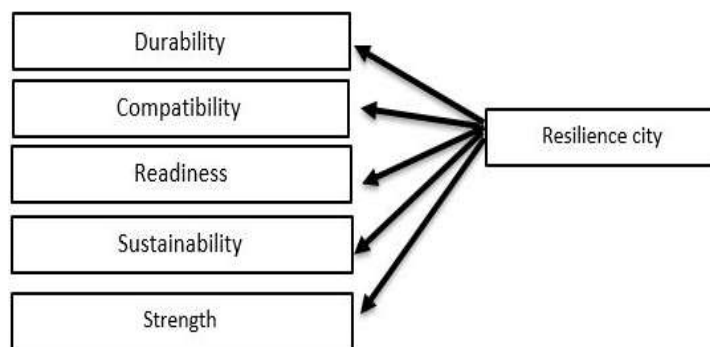


Fig.2. Resilience city

Table2. Frequency Loads of Independent Variable Questions

Indicators of urban spatial location	Indicator definition in relation to urban system	Researchers
Variety	Diversity in the structural and constructive elements of urban construction provides a context for strengthening the multi-functional nature of the urban system and promotes greater interaction between its components. The diversity feature allows the system to create space innovation, while maintaining relative stability in a variety of economic, social and cultural settings	(Hassler & Kohler, 2014) (Sharifi & Yamagata, 2016) (Suárez et al, 2016)
Connection or association	The integrated urban area, whether in one area or in relation to its context, facilitates the movement of people and goods. The structure of the connections determines the contact points between the elements of the urban zone and, consequently, the location and severity of the activities	(Sharifi & Yamagata, 2016) Allan & Bryant, 2011)(
Strength	The strength of the buildings, roads, and physical elements of the city. The strength or ability of system elements and units to resist the surface of chaos without degrading the system or losing its function, which is also referred to as a sustainability index	(Sharifi & Yamagata, 2016) Eraydin & Tasan-Kok, 2012)(Bruneau, et al., 2003)(

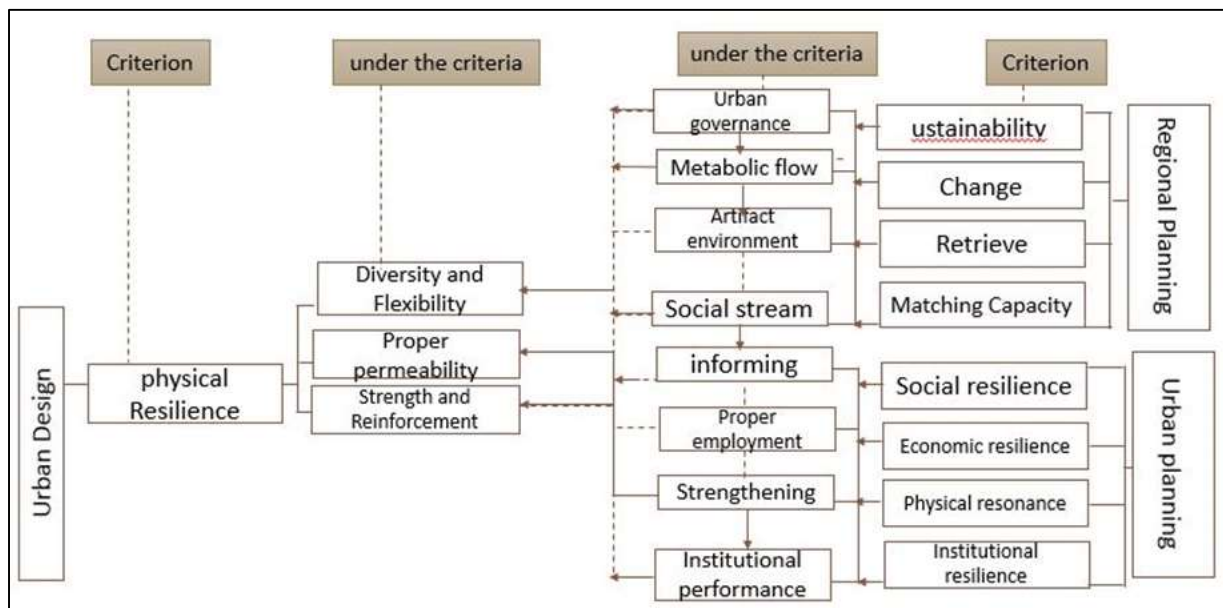


Fig 3. The Conceptual Framework of Resilience

4. Conclusion

The comparison of spatial resonance and social resonance theory shows the following:

Table 3. Conclusive Theories

In terms of approach to the problem	In spatial theory, theoretical dimensions include: redundancy, diversity, efficiency and productivity, autonomy, connection, compatibility, capacity or adaptability, strength and flexibility associated with urban spatial planning for urban disruptions, and attention to current and past problems and to improve the status quo, so the way of approaching the problem is connected to the theory of social resilience, given that the theory of the future is desirable, flexible and based on the fact that the necessary response to predicted and unpredictable changes is a consequence of the approach to the future
Prescriptive or explanatory	In spatial theory, because the theory deals with the description and analysis of the existing spatial organization, it is an illustration of social resilience, and the theory of social resilience is prescriptive in terms of the policies and strategies that predict the future
Procedural or Substantial	Spatial theory is substantial in terms of maintaining the status quo and applying physical capacities, and the theory of social resilience due to the fact that the attitude of the existing situation is formed during the process and the framework is procedural.
In terms of multilevel planning	<ul style="list-style-type: none"> * Both theories have a normative character due to the social and physical nature of them. *Spatial Theory has a structural function based on the structure and division of space. *Considering that the components of participation, awareness and collective skills are one of the most important components of social resilience and are concerned with meeting the needs of citizens, the theory of social resilience is democratic. *Social resilience is a social characteristic for social justice and relates to the well-being of residents in their particular case.

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