

An Analysis of the Application of the Concept of Urban Self-Organization in Neighborhoods Development (Case Study: Sabzevar City)

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Abstract

Although citizen participation in the neighborhood-centered approach is a key issue, there is ample evidence that the implementation of participatory approaches has led to disappointing results. According to researchers, the concept of urban self-organization can provide a way out of this dilemma for planners. Despite the importance of this issue, so far, no research has been done on how to use this concept in the process of planning and development of neighborhoods and cities in Iran. The present study tries to examine and analyze how to apply the concept of urban self-organization in the development of neighborhoods in Iran. A case study of this research is Sabzevar city and the research method is multi-ground theory. The analysis of the collected data led to the extraction of 547 primary codes, 77 concepts, and 31 categories. Finally, the abstracted categories and their relationships were drawn and presented in a model. According to the findings of this study, the pattern of self-organized participation of citizens in neighborhood development is a transparent, borderless, sustainable and technology-based network that connects all actors involved in neighborhood development. This pattern brings about the integrated development of neighborhoods and through very soft and gradual changes, creates huge changes in the cities.

Keywords: Multi Grounded Theory; Neighborhoods Development; Sabzevar; Urban Self-Organization

1. Introduction

In today's complex world, urban policymaking and planning are increasingly geared toward small and local scales (Friedman, 1993). In this approach, people's participation is considered as one of the basic and important principles in neighborhood development. But despite extensive theoretical efforts, there is ample evidence that the participation process has produced disappointing results (Boonstra & Boelens, 2011). (Eizenberg & Shilon, 2016). According to researchers, one of the most important reasons for the failure of participatory programs is to look at this issue as one of the duties of governments (Hasanov & Beaumont, 2016). In other words, planners and government agencies always make partnership plans, but this fact is not enough to achieve the partnership's goals. Researchers hope that the concept of urban self-organization can provide a way to deal with this challenge (Boonstra & Boelens, 2011). Indeed, urban self-organization as a tool for planning can take part in the process of privatization and delegation of responsibilities that are the responsibility of governments (Eizenberg, 2019) and lead local collective actions to active and inclusive participation among different actors (Hasanov & Zuidema, 2018).

Numerous studies have been conducted on urban self-organization that has addressed various aspects of the issue, but most of these studies have been conducted in developed countries with a long history of democratic

planning and decision-making, and its review has been neglected in developing countries with less history of bottom-up decision-making. In Iran, as well as, this issue has been less addressed and so far, no research has been done on how to use the concept of urban self-organization in the process of planning and developing neighborhoods and cities in the country. In fact, despite the high participation of Iranians in the informal arena and the existence of abundant social capital in the country's neighborhoods, the use of this great capacity in policy-making, planning, management, and development of the country's neighborhoods has been neglected. In other words, there are huge and hidden capacities in the neighborhoods of the country that lead to the innovative or spontaneous reduction and elimination of local problems by the citizens themselves, but these capacities and how the relations between their elements have never been documented and have not been used to promote citizen participation in usual neighborhoods' development processes. Accordingly, the purpose of this research is to investigate and analyze the application of the concept of urban self-organization in the development of the country's neighborhoods. The case study in this research is Sabzevar City. According to the researchers of this study, there are about 40 informal organizations in this small city that have not been formally registered and are not registered as NGOs. On the other hand, there are 128 registered NGOs in Sabzevar, which make up a total of 168 voluntary and public institutions in Sabzevar. This

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issue is another confirmation of the existence of huge hidden capacities that can be used in different sectors.

In a study conducted in 2021, the processes of urban self-organization in the city of Sabzevar were studied. This study only described the collective actions in the city of Sabzevar (Saffar Sabzevar et al., 2021). In the present study, an attempt is made to propose a model for using the concept of urban self-organization in neighborhood development. The present study attempts to identify and analyze the concepts and categories of urban self-organization and the relations between them by studying examples of urban self-organization in different neighborhoods of Sabzevar and device and presenting a pattern for using this concept in neighborhood development.

2. The Literature Review

In recent decades, in urban planning, people have made various interpretations of the concept of self-organization. A review of studies shows that researchers have looked at this issue based on two different ontological approaches and have achieved different results from different methods (Saffar Sabzevar et al., 2020). In the first approach, researchers have used the concept of self-organization in modeling approaches, especially in topics such as economic geography and urban growth. On the other hand, some researchers have used the concept of self-organization as an alternative to self-government and have often used qualitative methods (Bruijn & Gerrits, 2018).

In the present study, the second approach of self-organization has been used. In this view, urban self-organization is understood as bottom-up citizenship initiatives, social innovations, and community-based. According to this approach, a group of people who share common interests or needs spontaneously take action to find a way to solve problems or respond to conditions of social exclusion (Boonstra & Boelens, 2011); (Korah et al. 2017). These activities may also be carried out in response to the government's actions or cooperation with it and to take advantage of possible opportunities or deal with its possible adverse effects. However, researchers believe that citizens are fully capable of taking responsibility for their actions (Zhang et al. 2020). The difference between this view and public participation is that urban self-organization eschews formal planning practices. However, this view is also different from ordinary daily life habits, because, in self-organization, people consciously organize their actions and make necessary changes (Wallin, 2019). In fact, in this approach, the potential of people as planners and street-level experts should be considered (Cevallos, 2014).

Numerous studies have been conducted on the recent perspective on urban self-organization. For the first time, Boonstra and Boelens in a joint study examined some cases of self-organization. They found the concept of self-organization useful for the theory and practice of spatial planning (Boonstra & Boelens, 2011). In another study, Meerkerk et al. examined the relationship between local

stakeholder initiatives and the urban regeneration process by comparing two examples. According to them, self-organizing processes can be used in the reconstruction of urban areas (Meerkerk et al. 2013). Horelli et al also concluded in a study that urban self-organization can be supported by digital technology. However, they believe that the lack of connection between self-organizing processes and decision-making diminishes the impact of these processes (Horelli et al. 2015). After examining the processes of self-organization in the informal settlements of Accra, Ghana, Nunbogu, and Korah concluded that since urban self-organization is unique and context-dependent, planning should also be directed to guide the activities of different actors and adjust according to the internal conditions of each neighborhood. They emphasized that general planning standards as guiding principles cannot be effective in all situations (Nunbogu & Korah, 2016). In another study, Eizenberg explored the relationship between planning organization and urban residents by examining self-organizing in planning and dividing it into three categories. The study's results clarified that residents' self-organization can be dissolved without achieving any planning product, without any effect on the planning process, or without changing the urban space. However, self-organization can have a significant impact on all three fronts (Eizenberg, 2019). Tempels and Pessoa also concluded in a study that self-organized initiatives were capable of mitigating conflicts and creating social connections. They believe that while self-organized initiatives have a strong capacity to create social ties, municipalities have the experience and power necessary to implement spatial changes. It could be mutually beneficial to promote more cooperation between the public authorities and self-organized initiatives (Tempels & Pessoa, 2021).

Thus, many researchers consider urban self-organization as a complement to the planning system. They hope that government agencies and policymakers can use local knowledge production and urban self-organization initiatives to regulate the development of neighborhoods and cities (Wallin, 2019).

3. Materials and Methods

The present study falls into the category of applied and developmental researches in terms of purpose. In this research, to achieve the research goal, the method of multi-grounded theory (MGT) has been used. The multi-grounded theory is based on the grounded theory and to solve some problems and criticisms on it. This method includes three types of processes "empirical grounding," "theoretical grounding "and" internal grounding "(Goldkuhl & Cronholm, 2010). The coding process in multi-grounded theory is largely consistent with the coding processes in the Strauss and Corbin method. Table 1 compares the different structures and stages of grounded theory and multi-grounded theory.

Table1
Comparison of different structure and stages of GT and MGT

| GT | MGT | Comparison |
|------------------|---|---|
| - | Research interest reflection and revision | Not existing explicitly in GT |
| Open coding | Inductive coding | Similar approach |
| - | Conceptual refinement | Not existing explicitly in GT |
| Axial coding | Pattern coding | Similar approach |
| Selective coding | Theory condensation | No requirement in MGT for one core category |
| - | Theoretical matching | Not existing explicitly in GT |
| - | Explicit empirical validation | Not existing explicitly in GT |
| - | Evaluation of theoretical cohesion | Not existing explicitly in GT |

(Goldkuhl & Cronholm, 2010)

In the multi-grounded theory, the final concept obtained is the result of the continuous interaction and mutual process between the theoretical grounding and the experimental grounding. Hence, in this research, both theoretical and experimental grounding were carried out. In the first stage, to find a theoretical background, the urban self-organization keyword was determined as a criterion for entering the studies, and based on this, the theoretical grounding was performed.

To this end, all scientific papers in Persian and English published in the field of urban self-organization between 2011 and 2020 were reviewed and coded. The databases of Sid, Magiran, Springer, Google Scholar, Wiley, Science Direct, and Taylor & Francis were used to access these articles. At this stage, 164 Initial codes in the existing theoretical literature were calculated. Some of the codes extracted from previous studies are given in Table 2. Due to a large number of codes, all of them are not mentioned.

Table 2
Some of the codes extracted from theoretical texts

| Description of the extracted codes | Num | Description of the extracted codes | Num |
|--|-----|--|-----|
| Living in the same place | 11 | Respect | 1 |
| Conclusion an agreement between local authorities and local citizen groups | 12 | Collective intentionality | 2 |
| Construction of social housing | 13 | Social trust | 3 |
| Public cycling | 14 | Attract new investments | 4 |
| Local groups interviews with various newsletters and websites | 15 | Donations to self-organized groups | 5 |
| Learning new attitudes and practices by government actors | 16 | Local investments | 6 |
| How neighbors interact | 17 | Existing local jobs | 7 |
| Proper distribution of land uses | 18 | Access to municipal services | 8 |
| Respect for the capacities and values of citizens | 19 | Forming working groups from the hearts of citizens | 9 |
| Help build social connections | 20 | Spreading the idea of a clean day | 10 |

In the second step, empirical grounding was done through semi-structured interviews. Activists involved in urban self-organization processes in Sabzevar, including citizens and self-organized groups, urban management officials, as well as Specialists in the field of urban planning, have formed the population universe of this study. To select the statistical sample, a combination of judgmental targeted methods and snowball sampling, which are non-probabilistic, was used. To select the statistical sample, a combination of targeted judgment methods and snowballs, which are non-probabilistic methods, was used. In this way, due to the researcher's familiarity with some people involved in urban self-organization processes, they were asked to introduce other people who have a history of cooperation with urban self-organization processes or are familiar with these processes. The adequacy of sampling has also been achieved through theoretical sampling. the process continued until the theoretical saturation was achieved and the categories were saturated. This study reached theoretical saturation in the 16th interview, and this process certainly continued until the 18th interview. Ten of the interviewees were citizens who were directly involved in urban self-organization processes. 5 people were in charge of Sabzevar urban management and 3 people were experts in the field of urban issues. 14 of the interviewees were male and 4 were female. Nine of the

interviewees had a diploma or bachelor's degree and the other nine had a master's or doctoral degree. After each interview, to prevent the researcher's mind from distancing himself from the interview conditions, the implementation process was carried out immediately, and then, the steps of inductive coding, conceptual refinement, pattern coding, and theory condensation were performed.

As mentioned earlier, the reason for choosing Sabzevar as a research platform is its high history of informal public participation. The samples were also selected so that during the first interviews, the interviewees introduced examples of groups and self-organized citizen participation processes. After the initial review by the researchers, 3 samples from which more information was available, were selected and studied for a more detailed study. These three examples are "housing in the Jihad neighborhood", "Tohid Shahr Sustainable Development Group", and "the Diar Sarbadaran development group".

4. Results and Discussion

According to the research conducted in this study, there are different types of self-organized groups in Sabzevar which can be divided into three categories according to the scope of their activities. The scope of activities of the first group of people is limited to one community. The second category includes groups whose scope of activity

is several neighborhoods or part of the city, and a third category is a group whose scope of activity includes all neighborhoods of the city. It should be noted that a self-organizing group is a group of citizens who spontaneously take joint actions to meet common needs and problems. In the following, the findings of this study are described and discussed separately in different stages.

4.1. Inductive coding

In the inductive coding stage, line-by-line analysis of interviews and their careful examination led to the extraction of 383 primary codes. The obtained codes in this section and the codes obtained from the theoretical context (547 initial codes in total) were compared and after examining their similarities and differences, they were classified into 83 concepts. In the next step, the classification of concepts based on similarities led to the extraction of 31 categories. Amongst the extracted categories, "Networking and creating a continuous process of energy" with 48 codes, " Improving the functional dimension" with 45 codes, "Institutions involved in urban management and planning" with 42 codes, and "Socio-psychological characteristics of key individuals" with 37 codes, respectively, had the highest frequency of most identifying codes. Table 3 presents the concepts and frequencies of initial identification codes of some categories

4.2. Conceptual refinement

Conceptual refinement means creating a comprehensive definition of categories and clarifying them. Therefore, in this study, the obtained categories in the previous stage were critically examined through questions. These questions include "content determination," "determination of ontological position", "determination of context and

related phenomena", "determination of functions and purposes" and "determination of origin and emergence". Examples of conceptual refinement of some of the categories obtained in this research are presented in Table 4.

4.3. Pattern coding

At this stage, to analyze the application of the concept of urban self-organization in neighborhood development, pattern coding was done and the category of " Networking and creating a continuous process of energy" was identified as an axial category. Networking means establishing connections and interactions among different individuals, groups, and formal, semi-formal, or informal institutions. These connections include the permanent relation between government institutions and the civil society, the relationship between key people and other self-organizing groups, the relationship between managers, and the relationship between Citizens. It is a constant process of communication, interaction, and exchange of ideas, experiences, and information between different actors. In fact, through the establishment of dynamic interactions between different actors, various interpersonal networks have been formed. then various ideas, thoughts, and experiences have been exchanged, common challenges, needs, and interests have been identified and common actions have been taken. Networking and creating a continuous process of energy are the basis of self-organized development processes, which are emphasized in various ways in the collected data. Figure 1 shows the pattern coding process and the emergence of Networking and creating a continuous process of energy in the present study.

Table 3
Concepts and frequencies of code related to some categories

| Extracted concepts | Category | Frequency of codes | | |
|--|--|-------------------------------|------------------|---------|
| | | In the theoretical literature | In the interview | Overall |
| Permanent relation between government institutions and the civil society | Networking and creating a continuous process of energy | 17 | 31 | 48 |
| Relationship between key people and other self-organizing groups (network of groups) | | | | |
| Relationship between managers (network of managers) | | | | |
| Relationship between Citizens (Citizens Network) | | | | |
| Reform of access and transportation network | Improving the functional dimension | 6 | 39 | 45 |
| Deteriorated urban fabrics studies | | | | |
| Design and implementation of residential towns and provision of housing | | | | |
| Implementation of infrastructure and provision of services | | | | |
| Post-implementation protection and maintenance | | | | |
| Creation of leisure space | Socio-psychological characteristics of key people | 5 | 32 | 37 |
| Creative and thoughtful | | | | |
| Trustworthy | | | | |
| Having confidence and responsibility | | | | |
| Knowledge of negotiation and dialogue techniques | | | | |
| Having a background in collaborative projects | | | | |
| Flexibility against laws and possible conditions | | | | |
| Awareness of the current situation in the neighborhood | | | | |

| | | | | |
|---|---------------------------------------|---|----|----|
| Sense of belonging to the neighborhood | | | | |
| Negotiation and agreement between citizens and state bodies | Negotiations and agreements | 4 | 20 | 24 |
| Negotiation and agreement between citizens | | | | |
| Existing potentialities in the neighborhoods and conversion of them into each other | Multi-sectoral financing | 2 | 18 | 20 |
| Popular contributions | | | | |
| Budgets allocated by government agencies | | | | |
| Existing financial assets | Capacities and physical assets | 8 | 9 | 17 |
| Existing physical resources and capacities and local position | | | | |
| Sense of belonging and responsibility | Improving the Semantic dimension | 2 | 11 | 13 |
| Sense of identity | | | | |
| Satisfaction | | | | |
| Vitality | | | | |
| Economic utility | Economic achievements | 1 | 10 | 11 |
| Employment and entrepreneurship | | | | |
| Attraction of investor | | | | |
| Promotion of environmental cleanliness | Improving the environmental dimension | 1 | 8 | 9 |
| Protection of the green spaces | | | | |
| Protection of the green spaces | | | | |

Table 4
 Conceptual refinement of some of the categories obtained in the inductive coding stage

| category | content determination | ontological position | context and related phenomena | functions and purposes | origin and emergence |
|---|---|------------------------------------|--|--|---|
| Key forces | Individuals or local non-governmental organizations play a key role in urban self-organization processes. | Humans and their actions | Citizens' technical capacity, knowledge, and awareness, Socio-psychological characteristics of key people, Internal motives, Social capital of the neighborhoods | Establish communication between citizens and officials | Mechanism and social communication and experience |
| Formation of human networks | Forming chains of people that are interconnected during urban self-organization processes. | Humans and their actions | Negotiations and agreements, multi-sectoral financing, joint actions | Exchange information and solve problems | Planned and deliberate development |
| Improving the functional dimension | Improving neighborhood uses, functions, and activities | Material artifacts / human actions | Improving the semantic dimension, Negotiations, and agreements, multi-sectoral financing, joint actions | Neighborhood development | Planned and deliberate development |

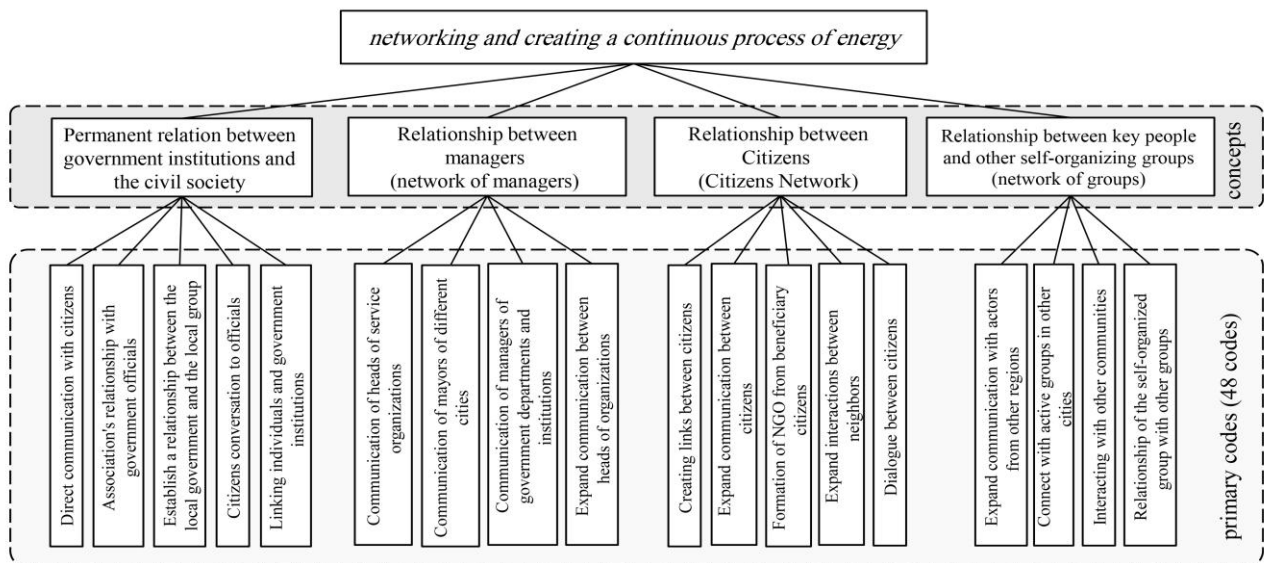


Fig. 1. The pattern coding process and the emergence of Networking and creating a continuous process of energy in the present study

4.4. Theory condensation

In this stage of the research, the obtained categories are systematically related to each other and presented within the framework of a process model.

Identification of Neighborhoods: In the present study, the category of "identity neighborhood" was identified as the first stage of the self-organized neighborhood development process. As we know, in today's cities of Iran, including the city of Sabzevar, there are no neighborhoods in the same traditional sense, and often, there is no clear demarcation between neighborhoods. Therefore, in the first step of promoting planning, the city should be divided into small units and neighborhoods. In this regard, trying to divide neighborhoods according to the social meaning and the meaning of physical-spatial plays an important role in identifying the creation of neighborhoods. Introducing the specific features of each neighborhood as well as introducing prominent people in different fields in each neighborhood and such actions play an important role in identity neighborhood. The issue of identity neighborhood in interviews conducted in this study has been emphasized differently.

Identifying the actors and existing capacities in neighborhoods: The second stage of the neighborhood's self-organization development process is identifying the actors and existing capacities in the neighborhoods. Identifying the actors and existing capacities causes accurate and complete information and data on the facilities and capabilities of each neighborhood to be obtained and documented for use in the later stages of the process. Actors contain "key forces" and "Institutions involved in urban management and planning". The key forces mean pioneers and volunteers, key people, local activists and trustees, people with specialized capacities and special skills and talents, entrepreneurs and small business owners in the neighborhoods, local NGOs, and the like. These actors "are citizens who, although few, are volunteers who are spontaneous and have a high capacity and can communicate between city management and people." (Interview with one of Sabzevar city managers). On the other hand, existing capacities include "capacities and physical assets" and "local scientific community capacities". Physical capacities and assets include available financial assets and resources and physical capacities, location of the neighborhood including commercial buildings in the neighborhood, existing local jobs, physical capital of individuals, vacant and unused land it is in the neighborhood and things like that. Local scientific community capacities such as existing universities and research institutes as well as researchers present in them is another issue that should be identified at this stage.

Networking and creating a continuous process of energy: According to the obtained model, after identifying the actors and capacities in the neighborhoods, it is necessary to network and create a continuous process of energy. As identified in the pattern coding, this category is the basis of the self-organized development process of neighborhoods. Therefore, trying to network and make connections between different actors that were identified in the previous step is the most important step of the proposed model. In this regard, one of the people of Tohid Shahr Sustainable Development Group said in an interview: "We have had meetings with many government and non-government officials. We are in contact with many experts (even outside the province). We are also in contact with some active citizens in Tehran and Mashhad."

Networking and creating a continuous process of energy should be supported through "Information and Communications Technology." In this regard, the creation of software platforms such as the design of integrated websites that directly link all identified actors and introduce existing capabilities, or the design and construction of applications for this purpose, it is proposed. Paying attention to this issue along with emphasizing "transparency and access to information" increases the speed of information transfer and establishes direct communication between actors and overcomes temporal and spatial constraints in conventional processes. On the other hand, due to the connections formed and the existing transparency, knowledge is taken out of the monopoly status. It approaches the level of ordinary citizens and their daily lives, and as a result, the level of citizens' demands also changes.

In-network events: Within the created network, multiple human networks with different arrangements emerge from the relationship between people and institutions, then exchange of ideas and brainstorming occur and common challenges, needs and interests are identified. Actually, through the establishment of dynamic and constant interactions between different actors, vital constructive relationships and connecting networks of individuals are created and developed, and finally, self-organized participation emerges. The created network has a dynamic nature and the ability to expand and can be considered as the neighborhoods self-organized development extensive network.

Required substrates: The categories of "citizens' technical capacity, knowledge, and awareness," "socio-psychological characteristics of key individuals", "Internal motives" and "social capital of the neighborhoods" were identified as the required substrates of the neighborhoods' self-organized development model. These categories are related to key forces. Maximizing and promoting them can improve the performance of key forces. Citizens'

awareness of the duties and powers of managers and government institutions, social skills and exercises, and technical capacities and skills and knowledge of citizens and self-organized groups lead to proper communication and increase effective interactions. They also play a role in providing accurate technical solutions and initiatives during the exchange of ideas and ideas. On the other hand, key individuals and local leaders often have specific socio-psychological traits that contribute to the success of citizens' self-organized participation processes. These people are usually responsible and have a sense of attachment about where they live. Key people often have a strong belief in the impact of the citizen's role in the development and have a history of collaborating on collaborative projects. Familiarity with the forms of negotiation, the manner, and form of conversation, and the art of expression are other factors that play an important role in the success of communication and interaction of key people.

On the other hand, the categories of "reform of laws, institutions and urban management at the macro level," "reform of laws and management structures at the local level," "local institution empowerment" and "managers' determination" are other required substrates of this model. They are related to the types of organizations and institutions involved in urban management. Facilitating legal structures and frameworks and favorable mechanisms of governance and urban management at the macro and local levels are the contexts that significantly affect the creation and expansion of self-organized citizen participation processes. This includes the following: Existence of multi-level urban management systems, legal protections for urban self-organization processes, proper selection of managers, elimination of bureaucracy and cumbersome administrative procedures, facilitation of required legal permits, and development of flexible local laws. as well as the creation of local management structures and the like. In this regard, one of the urban planning experts said in an interview: "We still have a centralized, sovereign, top-down view of urban management. Local authorities should be empowered to make changes to the rules based on the circumstances of each location."

Another category that is related to the category of organizations and institutions involved in urban management is the determination of managers and acceptance of the special role of citizens in the development of cities and neighborhoods in thought and action. Acceptance of this issue by managers causes more desire to communicate and interact with citizens and facilitates the creation of a continuous process of energy. Empowerment of local institutions by organizations and institutions involved in urban management is another platform needed for self-organized citizen participation. The more information, knowledge and knowledge of local

individuals and institutions about laws and legal procedures, duties and powers of institutions, problem-solving methods, negotiation methods, etc., the success rate of establishing effective interactions to solve problems or solve them or Meeting the needs of the neighborhood will be more.

Consequences of the first level: The flow of communication and exchange of information between different actors, in the first level, leads to the occurrence of "negotiations and agreements" between them, the decision for "joint actions" and "multi-sectoral funding". The process of multi-sectoral funding is often done through the potential of neighborhoods and their conversion to each other, public input, resources of self-organized groups, and budgets allocated by government agencies. "I have seen time and time again that members of the group have used their personal assets for collective purposes," and "In many cases, we provide funding by converting existing potentials into each other," One of the officials of Diar Sarbadaran Development Group said.

Consequences of the second level: According to the findings of this study, in the second level, Networking and creating a continuous process of energy promotes functional dimensions such as reform of access and transportation network, design and implementation of residential towns, provision of housing, and infrastructure and provision of services. Also, the semantic dimensions of the Sham neighborhood enhance the sense of belonging, memorable environment, vitality, and sense of identity. On the other hand, the environmental dimensions of the neighborhood are improved and economic achievements such as economic utility in projects, employment and entrepreneurship, and attraction of investors are achieved. Social and behavior-oriented interventions, as well as reforms within the legal framework, are other consequences of citizens' self-organized participation.

In the interviews, the issue of reforms in the legal framework is not mentioned as a consequence. This is due to urban management practices in the context of research (sabzevar), which is centralized and top-down, and yet self-organized participatory processes have not been able to affect improving it.

Achieving these consequences involves many aspects of development, which in turn leads to the improvement of the Required substrates. Figure 2 presents the concepts and categories related to the second-level outcomes.

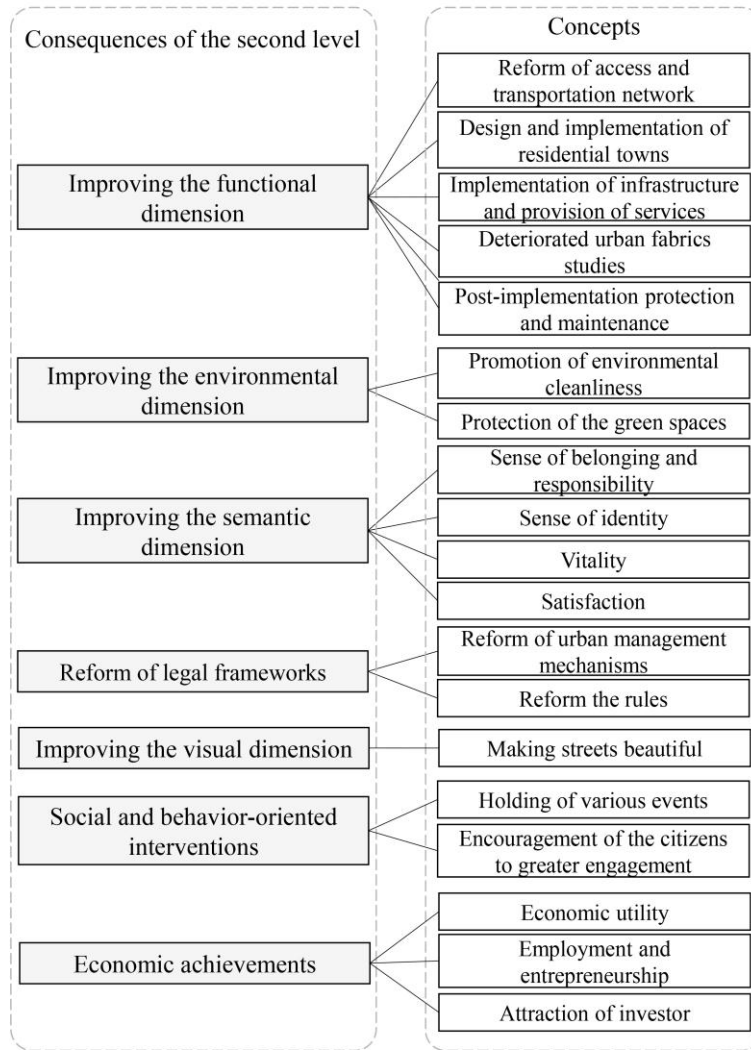


Fig. 2. The concepts and categories related to the second-level outcomes

According to the research findings, the neighborhood's self-organized development model is formulated and presented in Figure 3.

In multi-grounded theory, validation is an active part of the research process and is implemented in the form of a set of strategies. Although the calculation of this index in the field of quantitative research is based on accurate calculations and statistical tests, in the field of qualitative

research, due to its special features, it has changed to relativistic and interpretive concepts. In the present study, using the three concepts of "credibility", "transferability" and "dependability", an attempt has been made to increase the validity of the research. Table 4 shows the concepts and methods of increasing the validity of the present study.

Table 4
The concepts and methods of increasing the validity of the study

| Concept | Explanation of the concept | The method of increasing the concept in this research |
|-----------------|--|---|
| Credibility | Confidence in the veracity of the findings | <ul style="list-style-type: none"> • Displaying and presenting data analysis and its results to experts • Providing data analysis and its results to the respondents for awareness of their reactions at the reporting stage. • Self-reviewing of the researcher during the data collection and analysis process |
| Transferability | Ability to generalize the results to other areas and fields | <ul style="list-style-type: none"> • Use of special coding procedures in the data analysis stage • Provide detailed and rich descriptions of the coding method, quotes, and previous research |
| Dependability | Power of analysis and accuracy of data and their verification rate | <ul style="list-style-type: none"> • Collect data from various sources • Flexibility and re-evaluation of the interview schedule and review of its content and processes |

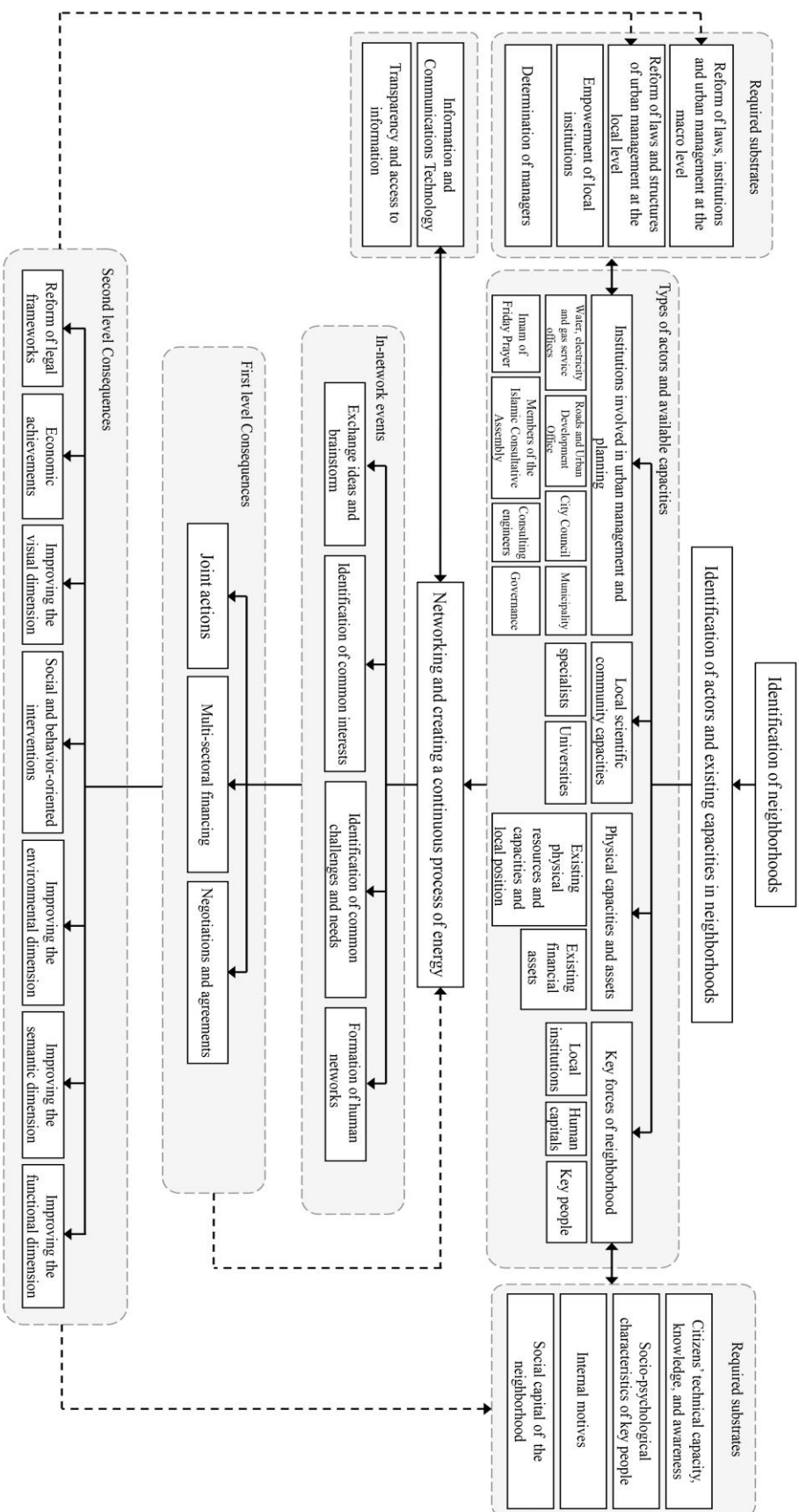


Fig. 3. The neighborhood's self-organized development pattern

5. Conclusion

According to researchers, the concept of urban self-organization can provide a way to successfully implement participatory processes in practice. The literature review shows that so far, no research has been done on how to use this concept in the process of neighborhood planning and development in Iran. Most of the research is conducted in countries with a long history of democracy, while the attention of developing countries, including Iran, on this issue has been ignored. Therefore, in this study, a multi-grounded theoretical approach was used to study how to apply the concept of urban self-organization in the development of Iran's neighborhoods. A model for using that was formulated and presented.

The most important finding of this study is that to achieve self-organized development, it is necessary to establish a lasting connection between individuals and formal, semi-formal, and informal institutions. This connection should be established through the network. To achieve this goal, it is recommended to establish digital communication infrastructure and software platforms (such as websites and mobile software), thereby establishing communication between all actors involved. Software platforms contribute significantly to increasing transparency and access to information (which are themselves important categories in self-organized development). The development of self-organization occurs through the connections formed between individuals and institutions. It seems that by guiding the development path towards creating and strengthening different links between different actors, we can hope to make major changes to the urban policy-making and planning systems in a very gentle, gradual, and slow way. In other words, the neighborhood's self-organized development pattern is a transparent, borderless, sustainable, and technology-based network that connects all actors involved in the development of the neighborhood. This pattern, through the links formed between individuals and institutions and by using the existing capacities, brings the integrated development of the neighborhoods and through very soft and gradual changes creates huge changes at the city level.

The results obtained in this study are generally consistent with previous research. Many concepts in previous studies are mentioned sporadically, but in this study, the scattered concepts extracted from previous studies and interviews were categorized into categories and provided a new pattern for the use of the concept of urban self-organization in neighborhood development. But some concepts and categories have emerged in this research according to the conditions of the research field. For example, the identification of neighborhoods due to the lack of specific neighborhoods with certain boundaries in the case study (Sabzevar city) was emphasized in interviews. It was considered the first stage of the proposed process. In this regard, trying to divide neighborhoods according to the social meaning and the meaning of physical-spatial plays an important role in identifying the creation of neighborhoods. Introducing the specific features of each neighborhood as well as

introducing prominent people in different fields in each neighborhood and such actions play an important role in the identity neighborhood. Also, the category of the local and scientific community capacities due to the existence of several universities in the context of research (Sabzevar city) is seen in the codes extracted from the interviews.

The category of reform of laws, institutions, and urban management at the macro level and at the local level was also emphasized in the interviews according to the conditions of the research context. Achieving the self-organized development of neighborhoods requires a review and redefining of urban management systems and legal frameworks at macro levels and changing urban management systems to multi-level management systems. Also, eliminating cumbersome bureaucracies and establishing flexible laws that are compatible with local conditions are other things that can help the development of neighborhood self-organization.

For future research, it is recommended to review and evaluate the model proposed in this research in other cities in Iran and improve the model accordingly. It is also suggested that future research examine and analyze the impact of citizens' self-organized participation on the functional, visual, environmental, and semantic dimensions of cities.

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