

Developing a Grounded-Based Model of Environmental Vitality in Malls of Tehran City

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Abstract

Shopping is one of the entertainment of life in big and modern cities. In the last few decades, Tehran is changing from a city of streets and supermarkets in a town of malls and shopping centers, and we are facing the phenomenon of financialization of the city. The consequences of unplanned expansion and the lack of specific design criteria for materialization have caused the situation of material saturation and ups and downs of life within the material, and in some cases have led to the phenomenon of the death of the material or its change of use. This research tries to identify factors that have an effective role in creating vitality in property. To achieve this purpose, 30 semi-structured interviews were conducted with buyers in Kuroosh, Palladium, Sana, Arg, and Tiraje commercial complexes with the qualitative method and grand theory approach. For data analysis, MAXQDA software was used, and the data were analyzed using open, axial and selective coding methods, and finally, the context-based model of environmental vitality in the malls of Tehran city is presented. According to the results of this research, finance is lively, which has lively patterns (variety of users and bodies, physical and visual permeability, organization (positioning and readability), standards and conditions) and lively ideas (sense of belonging, meaning, security), lively activities (participation, activities, attraction). Also, among the factors interfering with the vitality of commercial spaces are complex planning (goods, target groups, auctions, celebrations and contests, film screenings...), media and advertisements, infectious diseases, official holidays and seasonal changes, design criteria and standards and Background factors affecting the vitality of commercial spaces include the economic characteristics of shopping (macro and micro: government economic policies and economic conditions of the country, sanctions, people's purchasing power, income, occupation, economic class, etc.), social characteristics and Shopping culture (lifestyle, consumerism and fashionism, culture of buyers and sellers, cultural class of people, quality of life, etc.) can be mentioned. Also, the abundance of codes in the maxqda software shows that the factors of accessibility and permeability, the existence of spatial diversity, especially for recreational spaces, those that attract people to stay in the malls, have the greatest impact on the vitality of the mall.

Keywords: Mall; Environmental vitality; Grand theory; Grounded-based model

1. Introduction

The advancements of urbanization, cultural and social developments have caused shopping centers that are a symbol of modern and consumer lifestyles to no longer have an economic function and meet daily needs, but are a set of recreational, cultural and entertainment spaces, which are a heterogeneous set of needs. They cover the essentials and non-essentials of life. The multiplicity of commercial complexes has changed the urban context and people's daily habits in public spaces and attracted and kept more people in the commercial and consumer environment. The acceptance of shopping centers has been such that in many western countries, malls rank third in terms of the time people spend in a particular place, after home and workplace (Szymanska & Plaziak, 2021).

The evidence indicates that the growth of these centers in big cities, including in Tehran, has been to such an extent that it has been interpreted as the wave of Building mall and "tsunami of malls" (Jahani, 2013). The expansion of malls and shopping centers in the cities of our country is

such that malls will eventually replace the city, and as a result, people will migrate from the streets and alleys to malls. This will make shopping centers the most important element of the city's identity and existence. The city, which means something outside (street, traditional market, etc) has practically moved inside malls and commercial complexes and is becoming an Indoor- city rather than an outdoor- space (Kazemi, 2015). At the same time, there is also evidence that in some developed countries the growth of malls is reaching saturation and in this situation, we also encounter the phenomenon of dead or abandoned shopping centers (Parlette & Cowen, 2010, Guimarães, 2019). Commercial spaces, as a space where social interactions of citizens are formed and society's culture is promoted in its context, need vitality and happiness to continue life. Because the mission of architectural art is to improve the living condition of humans by increasing the quality of space, and this is achieved when it not only meets the functional and aesthetic aspects, but also fulfills the psychological needs of people. For this reason, considering the importance of malls in the lives of the people of our

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country and the lack of criteria for their vitality design considering the culture and social characteristics of Iran, in this research by referring to a number of malls and interviewing people who use them. Recognizing and compiling the grounded-based model of environmental vitality in the malls of Tehran is discussed.

2. Research background

In the research that Saeedi Rizvani and Khostu (2009) have done in order to identify the factors affecting the vitality of urban spaces, the attempt was made to consider the importance of shopping and walking in the quality of life of citizens in a conceptual format called pedestrian malls. The relationship between shopping activity, safety and vitality should be tested. By examining the case study of Sattar Khan Street in Tehran, which is commercially strong but does not have enough vitality, the result has been that there is a positive relationship between shopping centers and shopping activity and the vitality of the street. Rahimi and Jafari (2016) with the approach of a comparative study of vitality in historical and modern commercial spaces of Tabriz showed that vitality requires the creation of safe environments and the bazaar of Tabriz has more vitality with a multi-functional group. Sarwar et al.(2016) in the study of the role of commercial uses in the dynamics of urban space in Laleh Park, Tabriz, came to the conclusion that safety, adaptability, territoriality and sense of belonging are the main factors and variables of vitality in the commercial complex, evaluating customer satisfaction from the shopping experience in centers Lale Park is Tabriz. Bakshizadeh et al. (2015) in an applied research, presented a model to explain the role of success of commercial complexes in the country and examined the factors affecting it. Based on their findings from five successful commercial complexes in Tehran, the variables of the physical environment of the commercial complex and the desire of customers to stay in the commercial complex have influenced the success of the commercial complex and as a result the loyalty of the customers. Azizi and Esadi (2016) tried to express what are the criteria for the classification of commercial complexes in the world literature and the degree of compliance in the city of Tehran with the proposed criteria regarding the classification of commercial complexes. In this research, according to the morphological criteria mentioned in the literature, they collected and analyzed the information of Kourosh commercial complex through questionnaires and local survey. Data analysis has shown the lack of specific rules and regulations for commercial complexes in our country. Nahavandi et al. (2016) identified the vitality components of supporting spaces in new commercial centers and presented a conceptual model in this field. According to the results of this research, modern supporting public spaces in new commercial centers have vitality and this vitality has changed the functional shape of these spaces from dependent spaces to active spaces as independent urban semi-public spaces. Ghorbani et al. (2012) investigated the location of Saqqez commercial centers . They determined the final map of new commercial centers and matched the commercial complex

distribution pattern with the city's population size and location standards. The results of Heydarzadeh and Abakari's research (2013) showed that the combination of retail variety and environmental atmosphere had the greatest effect on user satisfaction. The research of Kahiravelu (2016) showed that malls have become a place of consumption and leisure, and because of this, immigrants and inferior groups are prevented from entering these centers . Erkip's (2003) studies on the emergence of shopping malls in Turkey: the use and attraction of a mall in Ankara, indicate that malls in Turkey have produced a kind of homogenous public space. Thus, to provide a safe and comfortable environment for the needs of the urban middle class, some social groups that are in conflict with this goal are eliminated.

3. Theoretical Foundations of Research

3.1 Shopping center

Shopping centers in Iran are about half a century old. If we leave the traditional markets as a long-lasting model of shopping and even leisure centers, we come across centers that, in parallel with the social and economic developments in the 1960 decade, broke their ties with the Physical of the traditional market and took another path. In Tehran, the creation and formation of commercial complexes in their simple and basic forms started gradually from the 1950 decade, but it has been a slow process until the 1990 decade. These forms of commercial complexes were only shopping centers and lacked leisure and cultural use. The early increase in the construction of malls goes back to the era of Karbaschi working as a mayor, however, when it comes to the next elected mayor, Ghalibaf, especially in the late 80s, the major developments began to stand out.(Kazemi & Ebrahimi, 2018: 12). The economic conditions of the country and the relative stagnation of residential spaces caused capital to be directed towards the construction of commercial complexes, and as a result, an explosive growth in the construction of goods was created. The municipality has also benefited greatly in this process, because the issuance of commercial licenses has generated income for the municipality five times more than normal licenses (Asgharzadeh, 2002: 17).

The entry of the word "Mall" into Iranian urban literature is relatively new and dates back in the 1990 decade. This type of commercial centers have a more modern architecture and structure than the shopping center, and in addition to the restaurant and cafe space, they mostly have everyday shopping spaces such as hypermarkets or supermarkets, or cultural spaces such as bookstores or art galleries. In most of the malls, bookstores or existing cafes are among famous and chain publishers and cafes. The range of malls is more than shopping centers and they attract more customers from different parts of the city. These centers were mostly built during the carpet weaving period. Another feature of malls is that most of them have large spaces dedicated to famous brands, but this is not always the case and some malls do not have brands or the brands in them are not famous and big brands. The brand's existence by itself attracts special customers, which ordinary shops have less possibility. Most malls have one

or two floors of public parking. (mall: shopping space + cafe / restaurant + cultural spaces + hypermarket + parking) (Kazemi & Ebrahimi, 2018). Mega malls are a more complete type of malls, and in addition to the facilities of the malls, they also have other leisure spaces such as amusement parks, cinema halls, theaters or concerts, and usually have big brand shops (Ibid:24).

3.2 Vitality

The history of paying attention to vitality in the fields of design goes back a long time; the knowledge of environmental psychology was formed. In the definition of vitality, the following ideas can be expressed: Jacobs in "The Book of Death and Life of American Cities" (2016) with a social approach to vitality states that "healthy and vibrant cities, organic cities, They are spontaneous and lucky. They are proud based on economic, human and architectural diversity, dense populations and mixing of uses". He describes each city as a unique entity with endless diversity, so general prescriptions and general solutions are not suitable for it. Density, mixing of different uses and buildings, in addition to the crowding and vibrancy of people, is the idea of an ideal city center in his thoughts. The need for diversity, mixed uses, lively and walkable streets, density, urban safety and prosperity, and the ability to highlight distinct and distinctive features of places from each other, which are still the main elements of the concept of vitality, are among the most important points of view. They are (Gratz, 2003, 18). Christopher Alexander deals with life and vitality with a phenomenological point of view. In his book *The Secret of Immortality* (2017), he advocates returning to traditional and more natural ways of creating a place and returning to the essence of things. According to him, certain patterns that make a building or a city may be alive or dead. The more living patterns in something - a room, a building or a city - the more alive and lively it becomes in a coherent overall form. When a pattern is alive, it releases its internal forces, it is self-sustaining and self-creating, and its internal forces continuously support itself, and every living pattern expands its life and spreads to other patterns. It is a lively, dynamic place, adaptable, life-giving, comprehensive, focused, without segregation and limiting layers, spontaneous, soul-satisfying and participatory. In his book "Theory of the Shape of the City" (2015), Kevin Lynch states with a regular and detailed observation of the appearance of a selected part of the city; A good residential environment is considered to ensure the health and well-being of people and the survival of living beings. It mainly considers biological and ecological criteria and deals with the issue of vitality only with this approach, it has ignored factors such as social and cultural issues which are just as important as ecological factors in this discussion, and it mainly considers vitality on a macro scale and a It examines a broad and at the same time superficial point of view. Henry Leonard also defines liveliness as follows: the possibility of watching people and hearing their voices, the possibility of informal gathering of people in public areas, the opportunity for children and young people to socialize in public areas. Public is the approval and valuing of all

citizens for each other and respect for the knowledge and awareness of all residents (Dadpour, 2011). Landry also examined the concept of vitality in a different way; He defined vitality and livability separately and dealt with the problem with four main approaches and in a topical way. 1- Economic vitality 2- Social vitality 3- Cultural vitality 4- Environmental vitality (Khosto, Rizvani, 2019). In the book "Creating a Vibrant Urban Center" for the design of public spaces, Pamir introduces the principles that he believes lead to the vitality of these centers, the first principle: creating an organizing structure, the second principle: creating an identity. The highlighter, the third principle: creating variety and attractiveness, the fourth principle: ensuring visual and functional continuity, the fifth principle: maximizing the ease of use, the sixth principle: providing comfort, the seventh principle: emphasizing high quality. Yan Gol also examines vitality in "The Book of Human City" (1394) in one chapter, Yan considers lively environments in which "voluntary" and "social" activities are carried out in a relatively wide range of time. is flowing In this case, some of the indicators for identifying lively environments include the density of pedestrians in the place, the number of diversity and the nature of the existing behavioral camps, as well as the presence of seasonal activities, the rhythm and speed of the city, the diversity of female, male, and old users. Young, child, disabled and variety of form and color in the urban landscape, etc. According to his point of view, passing through everyday life and flourishing of daily life depends on the growth of selective and social activities, and this growth depends on the duration of events and their occurrence at the same time and in the same space (emphasis on the two components of time and space). It also states that living in the city is a self-reinforcing process. Vitality is not necessarily crowding and high density, but reasonable density with desirable quality is necessary for the vitality of space, and vitality is relative and dependent on place. His ideas mainly emphasize the human side of architecture and the interaction between architecture and planning, sociology and psychology. The American Association of Architects also says in the definition of vitality: it is not possible to provide a single and specific definition for vitality and the vitality of a place must be defined and refined according to the characteristics of that place and its residents (AIA, 2005). The results that can be taken from the theories presented in this section to define vitality are summarized in Figure (1).

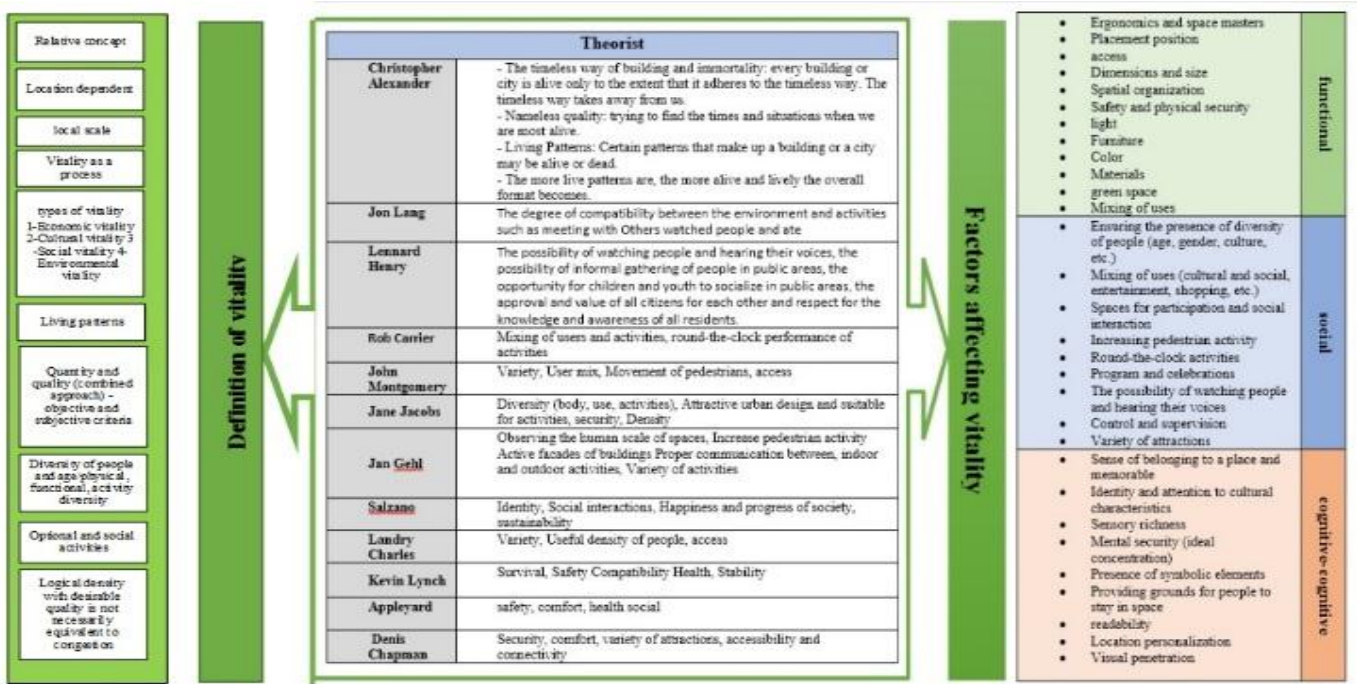


Fig .1. Research Definition and factors of vitality resulting from the review of theorists

4. Research Methodology

Considering that vitality is relative and dependent on place and time, this research, based on the paradigm of epistemology, naturalistic (structuralist-interpretive) and with a qualitative approach with the Grand Theory method, with the aim of explanation, tries to use theoretical topics in the field The concept of wealth vitality, to understand this issue better and also to present the context-based model of wealth vitality. In order to collect information, an in-depth semi-structured interview tool was used, which is suitable for the qualitative research method and especially the field theory. The sampling process and criteria for the selection of samples were determined and based on that, Palladium, Kouroosh, Sana, Arg, Tiraje commercial complexes of Tehran were selected, and the characteristics of the interviewees and the sampling process are given below. Is. After each interview, the data was coded with the help of MAXQDA qualitative data analysis software. The first step of qualitative data analysis in the systematic approach of grounded theory is open coding. Open coding is an analytical process through which identification concepts and their characteristics and dimensions are discovered in the data. Axial coding is the relationship of categories to sub-categories at the level of characteristics and dimensions, which is created in the form of a paradigm model. Selective coding is also the last stage of coding in which the main category is selected and its link with other categories is determined. The interpretation and expression of the relationship between the main category and other categories is done according to the presented research model (Strauss & Corbin, 1990). The research process is summarized in the diagram below (figure 2).

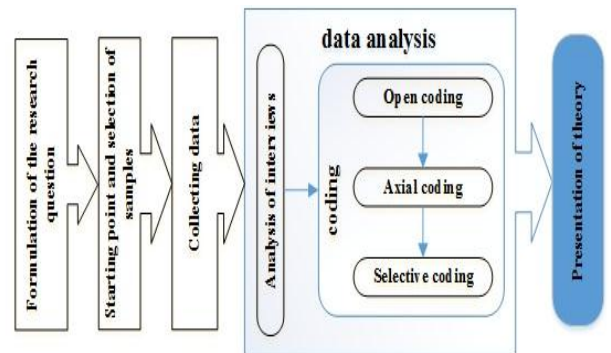


Fig .2. Research process

4.1. Data collection method

In grounded theory, data collection and analysis are done one-on-one. The analysis begins with the first interview and observation and leads to the next interview and observation; And the next interview, in turn, continues with the next analysis and interviews and field work after that, and the data collection is guided by the analysis. Therefore, the constant interaction between the researcher and the research process remains in the course of the research (Strauss & Corbin, 2017: 64). The determination of the sample in this method will be done simultaneously with other aspects of the research. In theoretical sampling, the selection of samples (not only people, but the next required data) is identified according to the analysis of previously collected data. With time, the depth and focus of sampling increases, because in the early stages, the discovery of new concepts and categories are considered, and in the later stages, the depth and richness of these categories are considered. Sampling ends when we have reached

categories with the sub-categories has been investigated. The dimensions and characteristics of these categories and subcategories are recorded in the form of a report. This is the central coding stage, the report of which is presented in the findings section. In order to better understand the coding steps in figure 5, the way to get from the secondary codes to the "security and safety" category as the main category is presented (figure 5).

4.3.3..Selective coding

This stage started after open and axial coding and identification of paradigmatic models. "Selective coding"

continues axial coding at a higher and more abstract level. At this stage, the formation and connection of each category with other groups is explained (Flick: 2017, 337). At this stage, the researcher appears more in the role of the author, who acts based on categories, coding writings, theoretical notes, networks and diagrams. The orientation of selective coding is to integrate different categories into a "macro-theoretical scheme" (cited in Shiri, Jones & Noble, 2007: 92). In the selective coding stage, the "core category" is identified and other categories are systematically related to it (Chamberlain, 1995).

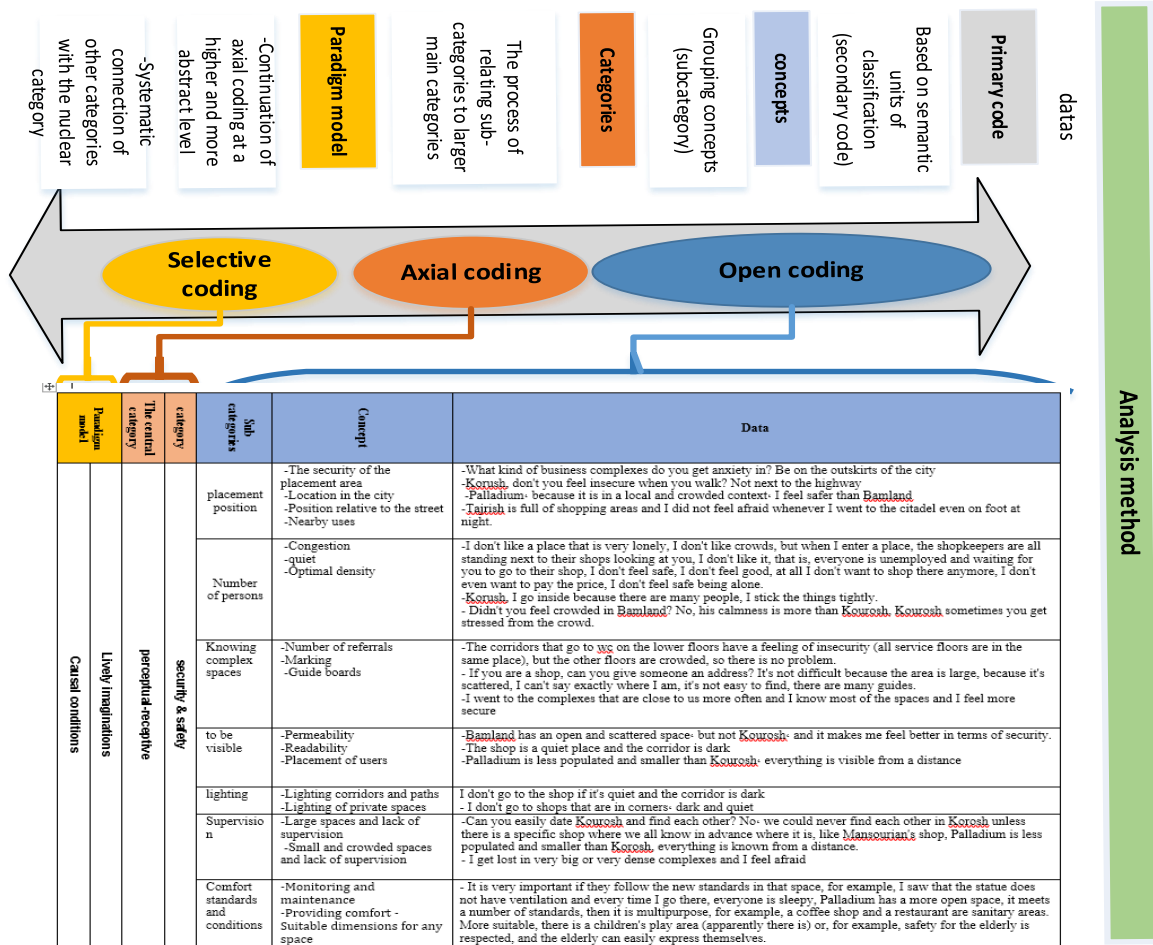


Fig .5. Security and safety category coding steps

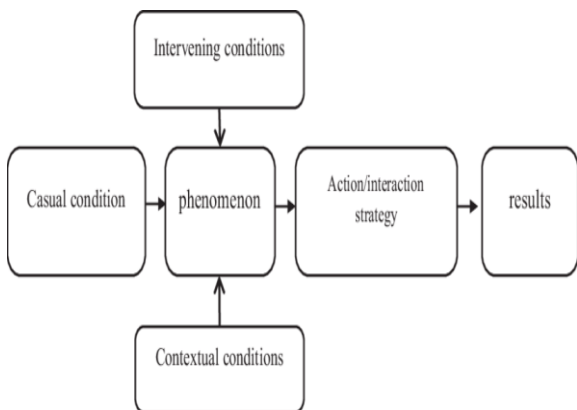


Fig .6. Paradigm model

5. Results and Discussion

With the help of conducting interviews in malls (primary sources) as well as deepening and exploring related texts (secondary sources) and qualitative analysis of their content with the help of the grounded theory method, they were coded and analyzed and central categories were extracted through central coding. After discovering the concepts, how they are related to each other based on the qualitative analysis of the known data and creating a logical connection with these concepts, the paradigm model of the research was obtained, which includes causal conditions, intervening conditions and Contextual conditions affecting the vitality of malls, which are further We will explain it (figure 7).

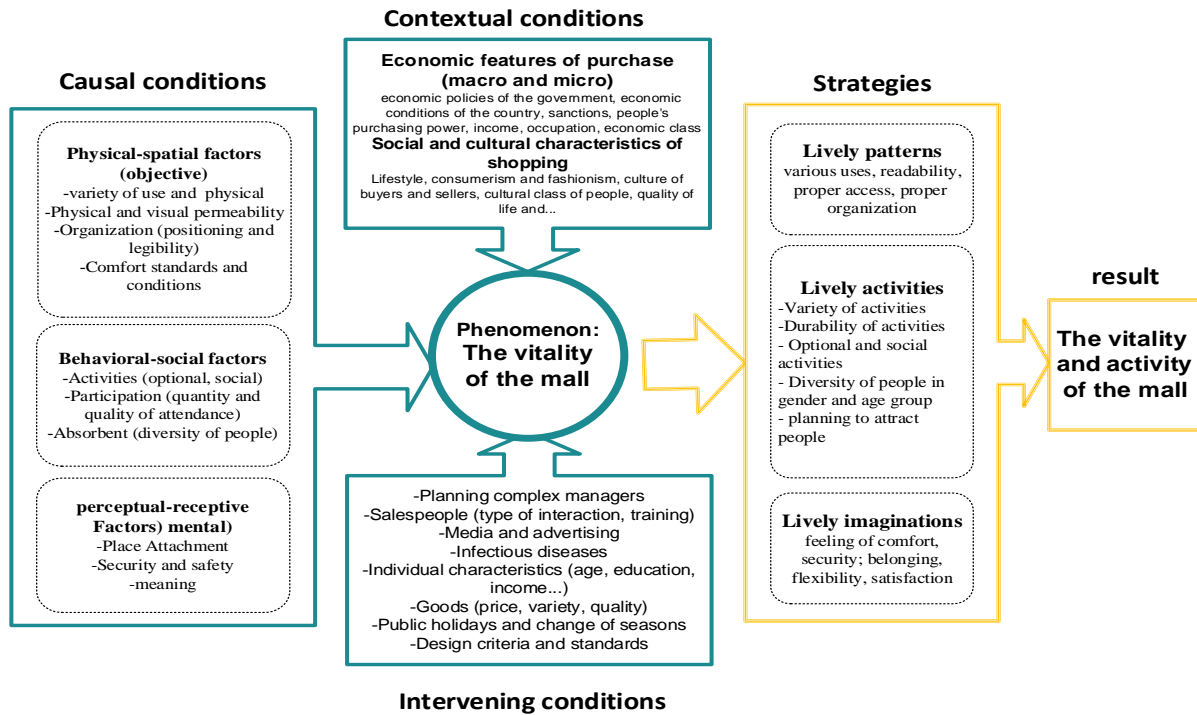


Fig. 7. The paradigm model of the vitality of commercial complexes in Tehran

5.1. Causal conditions

"Causal Conditions" refers to incidents, events and occurrences that lead to the occurrence or development of a phenomenon. (Stress & Corbin, 1385: 101). In this research, the causal conditions affecting the vitality of malls include 1- Physical-spatial factors (objective) 2- perceptual-cognitive Factors (mental) 3- Behavioral-social factors, which will be explained below.

5.1.1 physical-spatial factors (objective)

These characteristics include the objective aspect of the environment, which includes 1- variety of use and physical 2- physical and visual permeability 3- organization (positioning and legibility) 4- standards and comfort conditions. (figure 8)

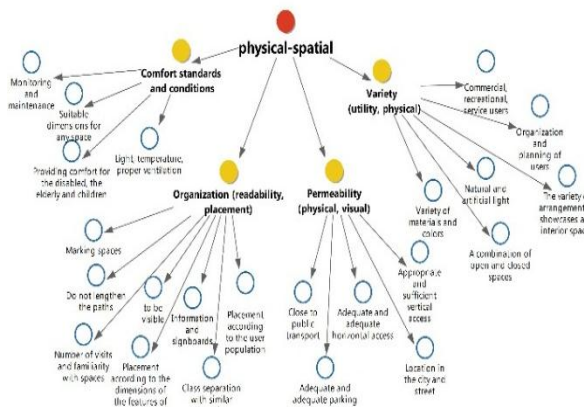


Fig. 8. The process of coding the category physical-spatial factors (objective)

- variety of use and physical:

Various factors are involved in providing a variety of uses that will bring vitality to malls. First, according to the needs, economic and cultural conditions of the population that are in the sphere of influence of the commercial complex, the intended uses should be examined and proposed, and then, according to the size of the complex, the number of floors, the location and the criteria and standards, etc., to organize and the appropriate placement of users to provide a variety that is needed for the vitality of the complex, because a variety of uses that do not work with each other or are not designed according to the needs of the users is a necessary ground for a variety of people's experiences and the vitality of the complex It doesn't work.

In people's responses to the spaces and uses that they use in commercial complexes, from all kinds of commercial, service and recreational uses, people considered the presence of recreational uses to be more effective in the vitality of commercial spaces, and the vitality of commercial complexes due to their variety for Different age groups were slightly different, for example, young people and teenagers considered Koroosh commercial complex to be more lively than Palladium due to its cinema, food court, and more restaurants. Also, physical variety including the use of materials, colors, arrangement of showcases and interior spaces, a combination of open and closed spaces, natural and artificial light... contributes to the variety of people's experience.

- Physical and visual permeability:

Due to the traffic and the size of the city of Tehran, the issue of easy access has a great impact on the visit of more

people and the vitality of the commercial complex. One of the main reasons people choose a commercial complex is and proximity to their place of work or residence. And due to the general nature of commercial complexes, it should be physically and visually accessible in order to use the capabilities of the complex's environment and provide more vitality. Factors that affect the more excellent permeability of the complex include: distance to the complex, location in the city and relative to the street, suitable and sufficient vertical access, suitable and sufficient horizontal access, suitable and sufficient parking, proximity to public transportation.

People first choose the nearest complex, if the complex does not meet their needs or does not have the desired quality or is duplicated, they choose further commercial complexes. And one of the factors that affects the desirable accessibility of the commercial complex and its vitality is the location of the commercial complex, commercial complexes that are located in the residential context and are closer to people's places of residence, generally people refer more, or people said to the complexes that are close to the place of work or residence. They were more frequented because they had easier access and were less stuck in traffic, and these complexes are more prosperous and lively than the complexes that were located in the outskirts or suburbs of the city. Also, it was easier for them to visit the complexes that had easier access and in a position that was closer to public transportation or a suitable position compared to the surrounding streets to visit the complex by private car or other means of transportation or on foot, and they had more visits. Another factor that some people paid attention to was the economic location of the complex, and the complexes that were more in harmony with the individual's economic situation in terms of design were welcomed by more people. Also, in commercial complexes, due to the fact that most of them have floors, one of the features that the interviewers stated is providing proper access to the floors, providing enough stairs and elevators according to the number of floors, proper placement of stairs and elevators, using signboards, etc. It is effective in increasing the permeability of floors, and horizontal access, including the design of appropriate corridors and entrances, which affects legibility, standards, dimensions and size, lighting and ventilation, sufficient furniture in the greater permeability of the complex and the satisfaction and lack of confusion of people. Also, one of the reasons why people preferred commercial complexes to street commercial lines was having parking in commercial complexes, which provides more comfort, security, etc. for people, and it was among the first priorities of people to visit, and sometimes not having adequate parking causes their dissatisfaction and referral.

- Organization (legibility and placement):

Properly organizing a commercial complex should provide the necessary background for the legibility and adequate placement of users. Designers, due to the generality of commercial complexes and people with different age, sex, etc. characteristics and less familiarity with the spaces of the complex, proper organization has a significant effect on

the legibility, permeability and vitality of the spaces. And one of the complaints and dissatisfaction of people from some commercial complexes was getting lost or not easily finding spaces or other people. If people were more legible, they felt more comfortable and relaxed, especially for the elderly, legibility is more of a concern because it makes them easier to communicate with the environment of the complex. will be Complexes that have a complex organization, people generally get lost more often, the lack of a central view and not seeing other floors, changing the location of stairs and elevators on the floors, the presence of many small shops or inappropriate separation of uses causes people to get confused. in commercial complexes with signboards, information boxes; Having mentors helps a lot of people. In crowded complexes and spaces that are not planned for the population, wandering and getting lost increases due to reduced visibility. Signs such as special shops, color or classification of products, etc. helps a lot in the legibility of spaces for people. Also, in general, young people and teenagers, due to their curiosity and higher mental capacity, can find and remember complex and unknown routes more easily, but older people have a greater desire for spaces that they already know or that are simpler, and they can find the routes later. In addition to these, some people are more skilled at mental maps due to their cultivation or innate talents.

Appropriate placement of users was also one of the factors that influence the satisfaction of people and the vitality of spaces. Appropriate placement of stairs and elevators in places where they can be seen and the routes are shortened are effective in reducing congestion, permeability and legibility of spaces, and people were more satisfied. In complexes where each floor or one path was assigned to a user or shops with similar goods, it is more desirable due to the ease of choice and less confusion of people. Also, in the placements, the dimensions of the spaces, the proximity of the uses, the amount of the population using them and the characteristics of the people using them, the criteria and standards, the length of the routes and the legibility of the uses should be considered.

- standards and comfort conditions:

People expressed quality as one of the characteristics of the lively complex, which they considered quality in light, materials, color, temperature and ventilation, flowers and plants, and furniture. The required light of commercial spaces was provided with artificial lighting due to the closed facades and the maximum use of windows for showcases, but the existence of open spaces and directing daylight into public spaces gives people a sense of peace and satisfaction. Proper temperature and ventilation make people feel relaxed and comfortable in the spaces. The interviewees stated that one of the reasons for visiting or staying was providing comfortable conditions. In winters and summers, due to the heat or cold weather, people preferred commercial complexes to open shopping spaces because they were closed and had temperature and air conditioning. In the design, taking into account the appropriate height of the spaces so that there is sufficient and appropriate air during the time of congestion, the

presence of voids in the open or semi-open spaces is a great help for ventilation and proper temperature. In open spaces, the presence of canopies, trees and water had an effect on temperature and ventilation. In complexes that do not have proper maintenance and supervision and wear out over time and are not updated, vitality decreases and people are less willing to visit. The existence of sufficient and appropriate furniture in the paths and places establishes more communication between people, providing comfort for all age groups such as older people who cannot walk for a long time or people who do not want to shop and are waiting for time. The presence of plants and green spaces in the design of commercial complexes helps to reduce stress and anxiety caused by urban life and attracts more people due to the calmness and pleasantness of the space. Also, compliance with the standards and suitable dimensions of each space has a significant effect on the level of people's visit and comfort and makes the spaces more lively. Providing the right size of the space, safety of people, providing the comfort of the users (disabled, elderly, children), designing based on urban standards and standards of commercial spaces, and continuous monitoring and maintenance of the space is effective in increasing the satisfaction and vitality of the space.

5.1.2. perceptual-cognitive Factors (mental)

These features include the mental aspect of the environment and the perceptual and cognitive perceptions of the person depending on the environment, which include: 1- place attachment 2- meaning 3- security. (figure 8)

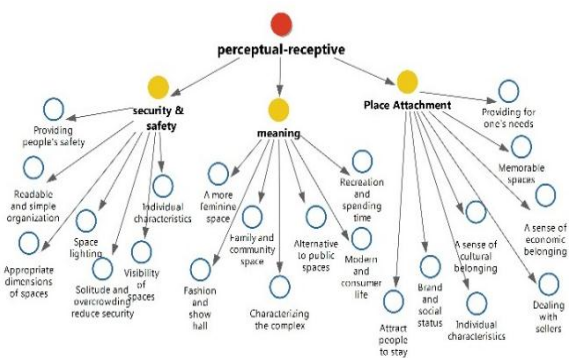


Fig .9. The process of coding the category perceptual-cognitive Factors (mental)

- Place attachment:

Generally, people refer more to commercial complexes that are near their workplaces or residences due to proximity and easier access, and the more people refer to commercial complexes, the more they know and discover spaces and the more people feel comfortable doing activities. Also, the longer people stay in the business complex, the more necessary ground is provided for their place attachment. The existence of a variety of users or a specific user that is more in harmony with the characteristics of a person will lead to more visits and the passage of more time. A person's lack of security in a commercial complex causes a person to feel uncomfortable and uneasy, and he does not have the

necessary comfort to have a place attachment to a commercial complex. Also, collective memories and the design of complex spaces, according to the culture and identity of people, have a significant effect on increasing the place attachment and vitality of the complex. Plans to attract people and create memories for them, including holding Nowruz ceremonies, live music, movie screenings, watching football, competitions, etc., increase people's place attachment.

- Meaning:

The impressions and meanings that commercial complexes evoke for people are as a space, which represents modern and consumer life, a new form of urban public spaces, a recreational space used to spend time. Also, shopping malls are considered a safe place for women because of the lighting and high surveillance, and therefore their presence in these spaces is meaningful and they are known as women's spaces. And shopping in Iran is more subject to the collective and family pattern than the individual and personal pattern and evokes a more family meaning for people.

The concept of shopping malls has become very relevant in Tehran today. Regarding brand consumption, we simply see in other countries that it is a factor for differentiation, interestingly, in Iran, especially in Tehran, shopping malls have also become a part of brand consumption. Where you buy is as important as what you buy. For example, if I shop at Palladium or Sam Center, they will have certain differentiated meanings for me, and the location of the shopping complex also affects the person's clothing, and shopping malls itself is a part of the process of building dignity. Also, the meanings that each business complex evoked for people were different, and people explained these meanings by characterizing or drawing, and for example, they were asked, if you consider a business complex to be a human, what characteristics does it have, such as age, gender, occupation and They used personality traits such as orderly, goal-oriented, confused, happy, depressed, proud and complacent, calm and composed, calculating, etc.

- safety and security:

Another factor affecting the vitality of commercial complexes is people's sense of safety. Generally, commercial complexes feel more secure than street queues due to the fact that they are closed and the presence of people and people's supervision, and people visit them late. Also, the amount of sufficient population affects people's sense of safety, for example, people did not feel comfortable and safe in complexes or secluded spaces, and on the contrary, in complexes with high crowding, they expressed a sense of insecurity and fear and anxiety. The location of the complex is also effective in a person's sense of safety. Also, being visible had a significant effect on safety, people in complexes where it is possible to monitor and see other people and located on the edge and solitude had a greater sense of security, and in paths, shops, spaces where there is not enough legibility and visibility, they felt restless. Lighting, legibility, design of open showcases that

can be seen inside the shop were effective in a person's sense of comfort and relaxation, and the presence of people to maintain security and supervision, ensuring the safety of people through design was also one of the things that affected a person's sense of safety inside the complex.

5.1.3. Social-behavioral factors

These characteristics include the social and activity aspects of the environment, which include: 1-Participation (quantity and quality of attendance) 2-Activities (optional, social) 3-Absorbent (diversity of people).

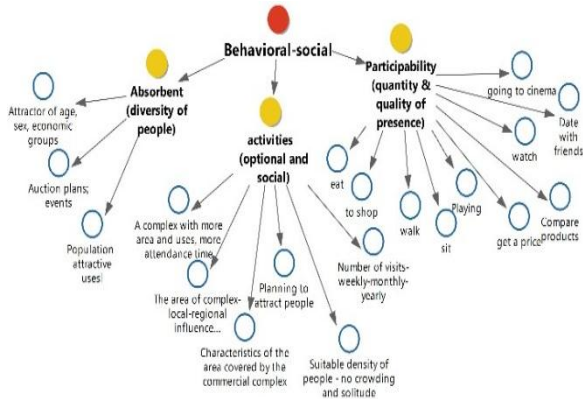


Fig .10. The process of coding the category Social-behavioral factors

- Participation (quantity and quality of attendance)

The more the participation of people in the spaces, the more the place attachment, security and freshness of the complex increases. The presence of people is needed for the participation of the space, but this presence is related to both the quality and quantity of the presence, it is not just a busy and lively space. The quality of people's presence can be checked by the duration of their presence and the number of visits, the quantity of presence by the number of people visiting the commercial complex.

-Duration of presence: The duration of the presence of people is effective by increasing the variety of careers, programs to attract people, higher efficiency of users, increasing the place attachment to the complex and ensuring the security of the person. Other intervening factors such as personal characteristics, infectious diseases, dealing with sellers, goods, auctions, holidays, consumerism, economy, number of companions are effective on the duration of a person's presence.

-Number of visits: Complexes that are located in the neighborhood or area of their residence or work had more visits, and they had more visits to commercial complexes located in the scale of their neighborhood and region. Usually, the closer commercial complexes are more in harmony with the economic and cultural characteristics of the people of that area, but if the commercial complex is not updated and does not meet the needs of the people of that area, or if it becomes repetitive, they refer to the commercial complexes of distant areas. Increasing the variety of uses, increasing the quality of uses, increasing

the place attachment to the complex, sufficient density of people will increase people's visits. Also, advertising and promotion of consumerism in today's society, an eye for an eye and the lack of meaning has increased people's need to shop and spend time and roam around and frequent commercial complexes.

-Number of people: Crowded commercial complexes give people a sense of anxiety, fear, worry, confusion, restlessness, and a lot of solitude in the commercial complex, especially for women, leads to a sense of fear, insecurity, restlessness, and finally, fewer people visit. The desired density cannot be expressed with a specific number of people, as a part of it is with individual characteristics (social, cultural, age, gender), infectious diseases, planning, characteristics of the location of the complex (gender, age, ...), the economy is also effective. But the optimal density of more people and the vitality of a commercial complex is a middle ground between solitude and overcrowding.

- Activities (optional, social)

each of these activities requires appropriate user design, planning, etc. People stated that the main reason for going to commercial complexes is shopping, but the existence of leisure and recreational uses that can perform other activities besides shopping has a significant effect on the choice of commercial complexes. Some commercial complexes have focused more on the needs of the special target group and provided more scope for their activities, for example, in the Palladium complex with Paying attention to the location of the complex in an area with higher economic power, it has taken into account the prosperous uses and activities, and has considered more luxurious design and brand shops, cafes, special gyms, etc., which has welcomed people from the surrounding areas and people have become more prosperous, or in Koresh complex, due to the young context of the western regions and its residents, there has been acceptance of the uses favored by young people, such as cinemas, restaurants and playgrounds, cafes, etc., that the presence of young people in this complex is more, but Due to poor and purely economic planning, crowding can be seen in some spaces. Taking into account the activities that provide the vitality of individuals, the vitality of the complex is also provided, and generally, activities that have an optional and social aspect, such as eating, playing, etc., have a greater impact on the vitality of commercial complexes.

- Absorbent (diversity of people)

the lively commercial complex attracts a variety of people. Each social class complex attracts different economic power, which is influenced by the location of the complex. In addition to the variety of users and activities, there must be different people in response to this variety, for example, the existence of a playground without children makes no sense. The vitality of most commercial complexes is to provide variety of users for different groups, these different groups include: age, sexual, economic, social, etc. groups so that people can visit commercial complexes with various companions, elderly, children and friends And this a

variety of people provides the basis for variety of activities in the commercial complex and more vitality of the commercial complex. Also, the presence of happy and lively people also causes more vitality. One of the other factors that affect the vitality of commercial complexes is considering the economic conditions of the community and designing and planning the complex based on the economic variety of more people so that they can use the complex's various uses.

5.2. Intervening conditions

Intervening conditions on the vitality of commercial spaces include: integrated planning (products, target groups, auctions, celebrations and contests, film screenings...) media and advertisements, infectious diseases, official

holidays and seasonal changes, design criteria and standards Can be named.

5.3. Contextual conditions

Contextual conditions affecting the vitality of commercial spaces include: 1- Economic features of shopping (macro and micro: government economic policies and economic conditions of the country, sanctions, people's purchasing power, income, occupation, economic class, etc.) 2- The social and cultural characteristics of shopping (lifestyle, consumerism and fashionism, culture of buyers and sellers, cultural class of people, quality of life, etc.) can be mentioned.

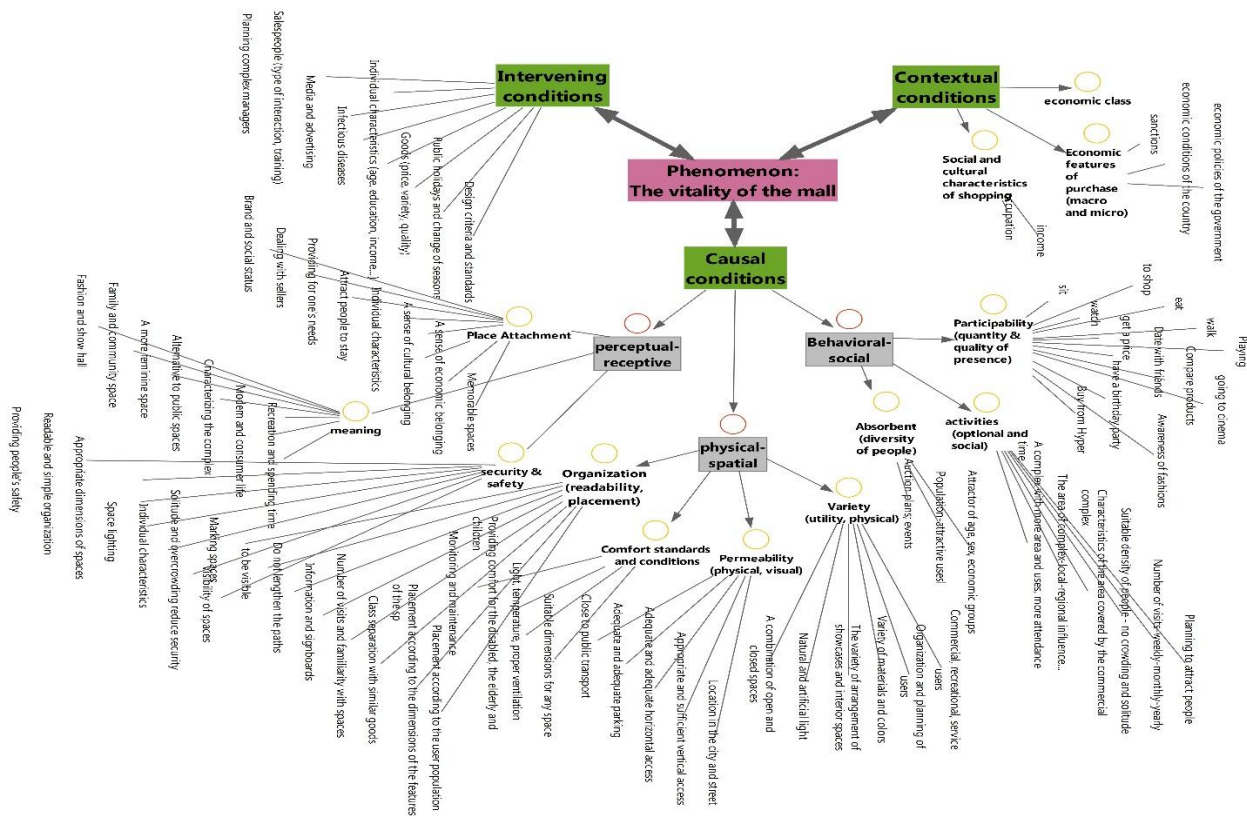


Fig .11. The obtained factors of the vitality of shopping centers with the grounded theory method

6. Research Validation

Validation in qualitative research is equivalent to reliability and validity in quantitative methods. "Having a foot in reality" of the findings and the adequacy of the research process are the validity factors of this method (Strauss and Corbin, 2015, 284), which shows the validity and reliability of the research. To check the validity of the contextual theory method, several conventional methods are usually used in this research:

-Control or Validation by the participants: in this method, the participants are asked to evaluate the general findings and comment on their accuracy. Considering that some of the interviews were conducted with familiar people, the accuracy of the general findings from the interviews was evaluated with them.

-Using the audit method: In this context, several researchers who are familiar with the field theory method and qualitative research are asked to review the various stages of the collected data, identification, conceptualization and extraction of questions and convey their opinions to the researchers. In this context, two

architects who have done their research using context theory and coding were asked to code three examples of interviews and the results separately and the results were compared with each other and their opinions were applied in the research after discussion and review.

-Three biases: Three biases both in the different methods of information gathering, in the analysis method and even in the examined theories help to validate the field theory research. For this purpose, according to the interdisciplinary nature of vitality, a comparative study was also used for research (published by the researchers in another article titled Explain the conceptual model of environmental vitality: a comparative study in the social sciences, architecture and urban (sanatgar,2022). And finally, the three models obtained from the theoretical foundations of the research, the model obtained from the comparative study and the model obtained from the grounded theory method were examined with each other until the final model of the research was presented.

Whenever they repeat the research again, they reach the same results, which is called "reliability" (Baker: 1381, 142). Reliability acquires its importance as a special criterion for evaluating the quality of research from the background of a specific theory regarding the study of the topic in question and how to use different methods (Felik: 2017, 412). However, the qualitative research method doesn't need to be reliable because the purpose of the research is discovery and the intellectual background, environment and actors affect the stability and reliability. Conclusion.

7. Grounded-Based Model of Environmental Vitality

Regarding the state of existence of the quality of urban vitality, the view of "environmental probabilism" is confirmed. Based on this point of view, urban vitality is a perceptual-cognitive phenomenon that is formed during the exchange process between the physical and perceptible

characteristics of the city on the one hand and cultural patterns and codes, mental abilities, previous experiences and observer goals on the other hand (Golgar, 2008). Therefore, in order to present the theoretical framework of the research, considering that based on the perspective of probabilism, the environment and the supervisor both influence the vitality of the shopping center, the combination of SixSmith's model and canter's model (1977) was used. According to canter's model, which is known as the "place" model, the environment as a "place" consists of three interwoven dimensions, "form", "activities" and "imagination". Also, according to the types of communication in Sixsmith's (1986) model, human communication includes the person's communication with himself, with others, and with the environment. Also, according to the definition of Landry (2000), which states the types of vitality including: economic vitality, social vitality, cultural vitality, and environmental vitality, and since the vitality of a place is inevitable from appropriate response to various environmental dimensions, it can be He defined the components that make up the vitality of the environment as components parallel to the components that make up the place. In other words, by adapting Canter's location model and communication model, it can be said that environmental vitality is the result of three components "physical", "activity" and "imagination" of the environment, each of which is responsible for fulfilling one of the qualities of the environment.(figure 11)

It was obtained from the combination of the theoretical framework and the paradigm model of the research that was obtained using the grand theory method and interviews in the malls, finally the basic context model of the vitality of the malls in Tehran was obtained, so how to deal with the concept of vitality in commercial complexes in three General category: 1- Examination of physical-spatial characteristics, 2- Examination of Behavioral-social characteristics, 3- Examination of perceptual-cognitive characteristics, it is summarized that in the findings section, the explanation of each of the obtained indicators.

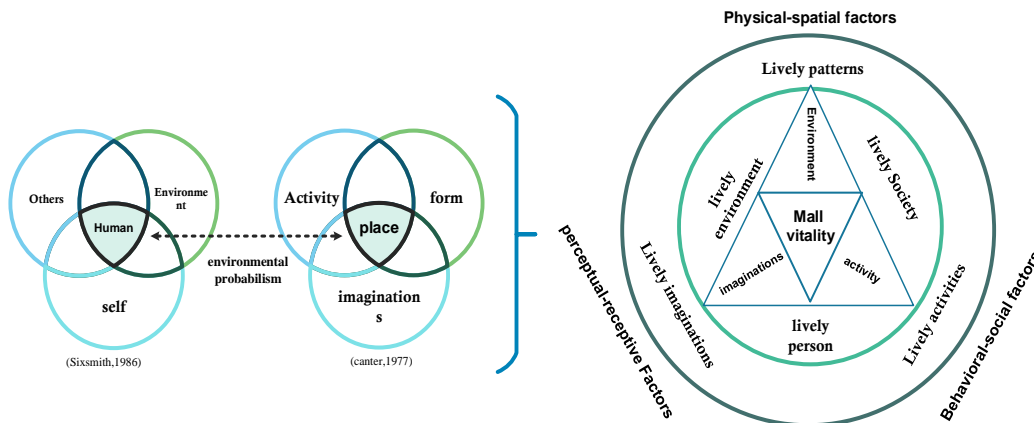


Fig. 12. The primary model of vitality of commercial complexes in Tehran

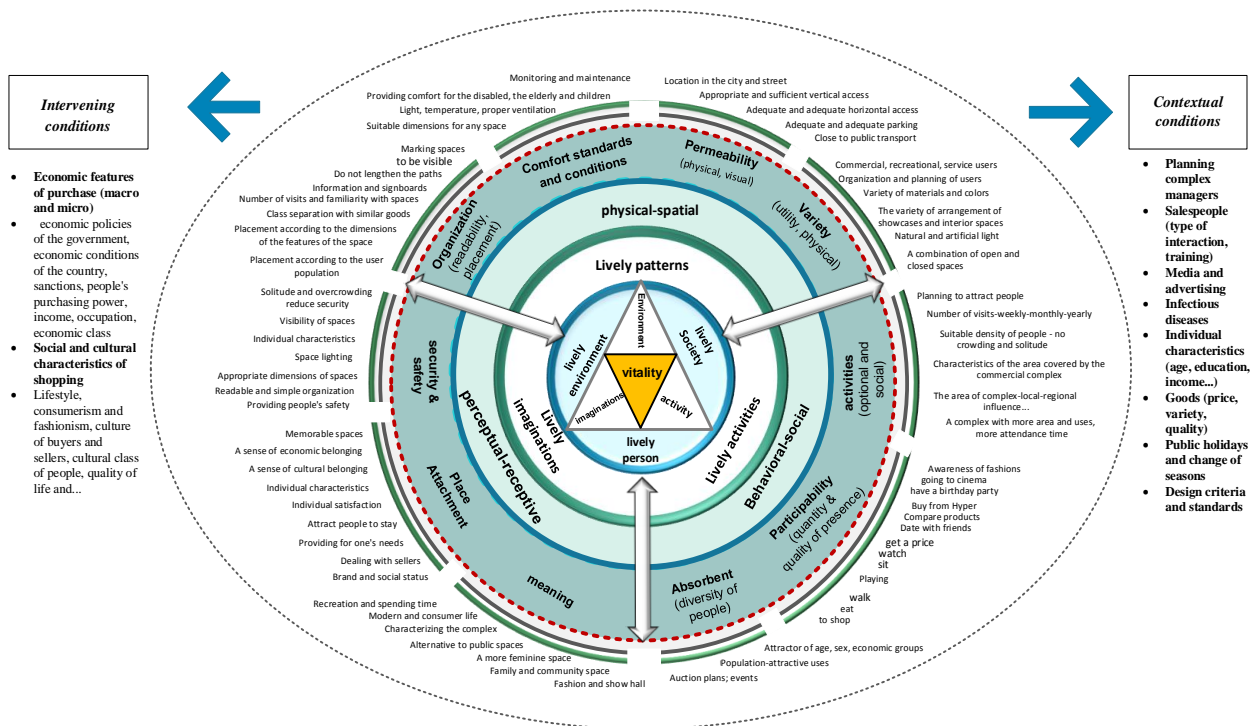


Fig.13. grounded-based model of environmental vitality in the malls of Theran

8. Conclusion

Due to the construction of many malls in Tehran and the attraction of a large population of people in them, these spaces need more attention regarding environmental vitality. What is certain is that shopping centers should be studied in the cultural and social contexts in which they are created, and a single and identical role cannot be considered for it, regardless of the society in which it appeared. In addition to the place of purchase and consumption, goods are connected and interact with each other. Malls are located and each one creates its own sense of place, and to study them, it is better to consider the history and life of each one, and the vitality of a shopping center can be understood in comparison with other malls. Therefore, in this research, a qualitative approach was adopted and an attempt was made to explain the mechanism of the concept of vitality of goods by examining the relationship between related concepts in the field of vitality and the physical environment of the architecture of goods. Finding these concepts was done with the help of conducting interviews in several malls in Tehran with the Grand Theory method. The results show that a lively shopping center has lively patterns (physical-environmental characteristics), lively imaginations (perceptual-cognitive characteristics), lively activities (behavioral-social characteristics).

- According to the theoretical foundations of the research, which are functional factors that affect vitality, What are the physical-environmental characteristics and indicators of the vitality of mall? Practically, how can lively patterns be created in the

design of malls? physical-spatial factors (objective) that include the objective aspect of the environment include 1- variety of use and physicality 2- physical and visual permeability 3- organization (positioning and legibility) 4- standards and comfort conditions. Various commercial, recreational, service uses according to the needs, economic and cultural conditions of the population that are in the sphere of influence of the commercial complex, the desired uses should be reviewed and suggested, and then according to the size of the complex, the number of floors, the location and the criteria and Standards and... organized and placed the appropriate uses to provide the variety that is needed for the vitality of the complex. Also, physical variety including the use of materials, colors, arrangement of showcases and interior space, a combination of open and closed spaces, natural and artificial light ... contributes to the variety of people's experience. Research studies show that going to the shopping center in our country is under collectivist and family culture, and this has made the use of personal vehicles dominant. Appropriate and sufficient parking has a great impact on people's satisfaction. The location of the complex is close to public transportation, the streets are of suitable width and low traffic, legibility in the city, the number of entrances and exits for riders and pedestrians are sufficient and legible, the number of stairs and elevators with appropriate and sufficient dimensions and legibility, simple organization and Regularity has a significant effect on the permeability of the complex. Appropriate placement of uses in accordance with the dimensions, needs of people, accessibility, number of floors, number of users, ... and legibility of spaces by

marking spaces with colors, materials and indicative uses, visibility, lighting, information and Signboards, increasing the number of individual references, simple organization and not lengthening the routes and appropriate density of users are related. Also, providing suitable conditions for the movement of disabled and elderly people and children with proper access to floors and flat paths, suitable ventilation and temperature conditions, sufficient furniture, supervision and maintenance of the complex are influential in people's satisfaction.

- According to the theoretical cognitive of the research, which are functional factors that affect vitality, What are the perceptual-cognitive characteristics and indicators of the vitality of mall? Practically, how can lively imaginations be created in the design of malls?

perceptual-cognitive Factors (mental) that include the mental aspect of the environment include: 1- place attachment 2- meaning 3- security. Plans to attract people and create memories for them, including holding Nowruz ceremonies, live music, showing movies, watching football, competitions, as well as dealing with sellers, increasing coordination with the economic and cultural characteristics of people, which will make people visit more and stay longer. It increases their place attachment. Also, among the meanings that shopping centers evoke for people include recreational and spending time spaces, modern and consumer life, family space, fashion and show hall, more feminine space, alternative to public spaces of the city, etc. Another factor affecting the vitality of commercial complexes is people's sense of security. Generally, commercial complexes feel more secure than street queues due to the fact that they are closed and the presence of people and people's supervision, and people visit them late. Also, the amount of sufficient population affects people's sense of security, for example, people did not feel comfortable and safe in complexes or secluded spaces, and on the contrary, in complexes with high crowding, they expressed a sense of insecurity and fear and anxiety. The location of the complex is also effective in a person's sense of security. Also, being visible had a significant effect on security, people in complexes where it is possible to monitor and see other people and located on the edge and solitude had a greater sense of security, and in paths, shops, spaces where there is not enough legibility and visibility, they felt restless. Lighting, legibility, design of open showcases that can be seen inside the shop were effective in a person's sense of comfort and relaxation, and the presence of people to maintain security and supervision, ensuring the safety of people through design was also one of the things that affected a person's sense of security inside the complex.

- According to the theoretical social of the research, which are functional factors that affect vitality, What are the behavioral-social characteristics and indicators of the vitality of mall? Practically, how can lively activities be created in the design of malls? Social-behavioral factors that include 1-Participation (quantity and quality of attendance) 2-Activities (optional, social) 3-Absorbent (diversity of people). The more the participation of people in the spaces increases, the place attachment,

security and vitality of the complex increases. The presence of people is needed for the participation of the space, but this presence is related to both the quality and quantity of the presence, it is not just a busy and lively space. The quality of people's presence can be checked by the duration of their presence and the number of visits, the quantity of presence by the number of people visiting the commercial complex. Among the activities that people have in malls and should be designed and planned according to them include: awareness of fashions, going to the cinema, shopping, eating, celebrating birthdays, playing games, shopping at hyper, comparing goods. making a date with friends, taking a price, watching, sitting, walking. Also, the desire of people to stay and attract different age and gender groups, different economic groups with different uses and auction programs, celebrations, competitions, etc. is possible.

Among the factors interfering with the vitality of commercial spaces are integrated planning (products, target groups, auctions, celebrations and contests, film screenings...), media and advertisements, infectious diseases, public holidays and seasonal changes, design criteria and standards. be able to name and background factors affecting the vitality of commercial spaces

1- Economic characteristics of shopping (macro and micro: government economic policies and economic conditions of the country, sanctions, people's purchasing power, income, occupation, economic class, etc.)

2- Characteristics Social and cultural aspects of shopping (lifestyle, consumerism and fashionism, culture of buyers and sellers, cultural class of people, quality of life, etc.) can be mentioned.

Considering the lack of qualitative researches on vitality, it is suggested to investigate vitality in other public spaces and to consider local scales for research in order to reveal its ambiguous aspects more precisely. Also, there is no specific information and criteria regarding the design of commercial spaces in our country, and researches have not been conducted on commercial spaces that have become spaces for people's entertainment today, and there are only general criteria, the results of which need to be investigated and researched rather than criteria. Bumi to evaluate commercial spaces.

In this research, the following were obtained from the comparison between the factors obtained from experts and the factors obtained from grand theory.

-Confirmation of causal factors by matching with theorists' factors

-Obtaining more factors according to the context

-Obtaining intervening and contextual factors

-Getting metrics to measure indicators

Also, the abundance of codes in the maxqda software shows that the factors of accessibility and permeability, the existence of spatial diversity, especially for recreational spaces, those that attract people to stay in the malls, have the greatest impact on the vitality of the mall.

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