

Analysis and explanation of security in the urban environment based on physical development (Case Study: Isfahan Metropolis)

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ABSTRACT

The sense of security is one of the indices of quality of life in cities and social injuries are considered as the most important consequences of lack of security. The concept of security and the sense of security recently introduced in urban affairs and urban planning. One of the developmental indices that affects the security of urban spaces is physical indices. Therefore, the need to pay attention to physical development, and its planning for sustainable urban development in the framework of national, regional and urban planning, is more and more felt. So the aim of this study is Analysis and explanation of security in the urban environment based on physical development. As a case study, Isfahan Metropolis of Iran is investigated. The research method is analytical and based on library, documentary and field studies. SPSS software was used for analysis. The results of research showed that in all of the indices mentioned, among the indices (placement of telephone and newspaper bills or mobile kiosks in crime areas, the use of fences and symbolic constraints or actual restrictions, adequate use of railings, warning signs and glass and windows, observance of space lighting standards, optimal upgrades and enough gates, entrances), the average value of them is less than the midpoint of 3. The rest of the indices considered above are above the median of 3, which indicates a high level of security based on physical indices. Finally, in the second hypothesis, the significance level is less than 0.05. In this way, we can conclude that there is a meaningful relationship between two variables of physical and security development indices.

Key words: security, physical indices, development, urban environment, Isfahan

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I. INTRODUCTION

Security is present in every aspect of everyday life of a person. Security virtually covers all aspects of human life. Speaking about individual security, national security, social security, air safety, road safety, food security and so on shows comprehensiveness of security in all aspects of individual life. At the same time, the notion of security is so obvious that we will not hesitate to contemplate and question it. Security exist and it is inherent in society, but, as Coustler said: The most obvious things are those that require more testing. Therefore, security is one of those obvious concepts that needs to be carefully examined. By the 1980s, when security studies were under the influence of realistic insight, security was perceived as an answer to the issue of survival, and was based on the assumption that man always faced an existential threat that required security. In this view, security was considered as physical survival of the nation-state and its potential military offensive. In fact, from the perspective of this approach, security was considered as an empirical issue and not conceptual.

Thus, these analyzes ignored the fundamental dimension of security, the ontological and epistemological dimension, by preferring the empirical perspective (Boazan, 1999:12). Looking at the development of urbanization, one can find that urbanization has different consequences for its inhabitants, among which the security and feeling of safety have a fundamental role in citizenship satisfaction and the desirability of life in the form of sustainable human development. Obviously, without creating security, we cannot expect the efficiency of urban structure as a system of components and elements for the accommodation of citizenship and life along with human welfare and dignity. In the meantime, the component of security and citizen participation should be improved, because without citizen participation, appropriate, efficient and optimal interventions in the security of the city are not possible and social security programs must be given the highest attention to the people and their role. At the same time, it cannot be expected that improving the quality of life, increasing citizenship satisfaction and realizing sustainable urban

development in the context of social capital formation and social participation can be provided without effective and efficient upgrading of the components of urban security. The feeling of security is one of the indices of quality of life in cities and social injuries are among the most important consequences of lack of security. The concept of security and the sense of security that recently introduced in urban affairs and urban planning summarizes includes security and resources of institutions, social relations and social interaction norms that create the social interaction of the urban community quantitatively and qualitatively (Mousavi, 2008: 40). The concept of security in cities over the past decades, with the growth and development of urbanization and the expansion of cities and the complexity of the social relations of citizens in cities, have been removed from the initial state and physical aspects and have different dimensions of economic, social, cultural and there are political issues that today, security in cities includes issues such as poverty, unemployment, inflation, or the quality of public services, crime, social anomalies, and addiction (Mousavi, 2008: 40). However, urban spaces as a living and activity area of citizens should be able to provide a safe, healthy, and attractive environment for all individuals, in accordance with the similarities and differences between individuals and social and age group. Provide an appropriate response to the needs of all social strata and meet the minimum needs (Shariati, 2005, 10). One of the developmental indices that affects the security of urban spaces is physical index. Therefore, the necessity to pay attention to physical development, and its planning for sustainable urban development in the framework of national, regional and urban planning, is more than ever felt so that the use of knowledge and techniques of Planning will solve the problems of citizens' insecurity and provide a relaxed environment with comfort and prosperity. So the aim of this study is Analysis and explanation of security in the urban environment based on physical development. As a case study, Isfahan Metropolis of Iran is investigated. The metropolis of Isfahan is the third most populous metropolis in the country. Despite the efforts of many planners and officials, the city still faces many problems in various areas of development, including physical indices.

This has contributed to the city's insecurity. However, according to the submitted materials, the questions that will be investigated will be as follows:

- how much is the development of physical indicators of Isfahan city?
- What is the relationship between the development of physical and security indicators in Isfahan city?

II. RESEARCH BACKGROUND

Bemanian and Mahmoudinejad (2008), in a research entitled "An Investigation into Measuring the Influential Factors on Urban Safety: A Case Study: Kerman City", it is concluded that security in various dimensions in the city is at an acceptable level but among them, the two categories of environmental security - security against natural disasters and religious security - are somewhat shaken by citizens. Based on this, it seems that in order to improve and enhance the sense of environmental and religious safety in the city, effective measures should be taken in the context of effective interventions.

Rabbani and Afshar Ahan (2004) in a paper titled "Urbanization and Security Research on the factors and conditions affecting the security of the cities from the perspective of the citizens of the case: the new city of Baharestan", intend to review the economic, social, political and security aspects of the role of institutions and institutions producing security is also addressed. The results of the survey indicate that the high expectation has been relatively fulfilled. In this regard, the social conditions of the whole society, spatial position, composition of residents of the new city are considered as important variables.

Pourjafar et al. (2008) in an article on promoting environmental safety and reducing urban crime, emphasizing the approach of c.p.t.e.d, examines the security of citizens and ways to promote it. In this research, the physical role of the city (town planning and design) in reducing and preventing crimes is mentioned in the c.p.t.e.d approach. It is important in this regard that today urban planning processes are less likely to address the potential of urban areas and buildings to reduce or prevent crime. Their results showed that it is possible to emphasize that the urban crime rate reduces through urban design.

Gharei et al. (2010), in a paper on sensing security in urban areas, Tehran's 2nd and 11th districts as a case study, the first hypothesis of research has based the research on the sense of security for residents of different urban neighborhoods. People have a strong presence in the police and police forces, cultural level and space conditions are the most important factor in creating a sense of security.

Navidnia (2010) in a paper titled "Security Priority of Citizens in Different Areas of Tehran" examines the status of citizens in different areas of the city according to their security priorities. The findings show that the security of citizens is a function of their security priorities in different parts of Tehran.

In 1971, Jeffrey refers to the undeniable role of security in urban spaces in the book of urban crime prevention by defining the perimeter of defenseless spaces. George Kling and Wilson and Paul Brotherham also point to this in separate books titled *Criminology*.

Zabihi et al. (2012) presented the results in a paper titled "Providing an Analytical Model for Promoting Urban Security through the Design Safety Security" (SBD) in District 17 of Tehran Municipality, the difference in the level of urban security among the four areas of the study area So that Zone 4 is the safest zone in the range. Also, from the principles and criteria under consideration, the principle of "physical security" and the criterion "difficulty targeting the crime" with the weight of 0.029 and 0.068 have played a major role in promoting urban security in the study area.

III. THEORETICAL FOUNDATIONS OF RESEARCH

Various views about environment and security

Security has many dimensions: Human security means protecting individual, financial, cultural, social and political rights and security. Human security has two dimensions, then a minimalist dimension where the community is able to provide and guarantee its livelihoods and its survival and security and then the promotion dimension (welfare) in which people are able to feel positive and comfortable in life and psychological-Socially safety. But, in the meantime, individual security is more important to people than other human security. In fact, the feelings of people's lack of security in a community can have a lot of consequences. Lack of trust or feelings of concern about different issues also results in specific withdrawal behaviors. People can leave insecure areas. Untapped disorder and irregularity shows that the area is unsafe (Giddens, 2008). The theoretical foundations of regularity and security relate to the philosophy of the existence of these two concepts and their interaction in society, and it is one of the most fundamental components of every society. Therefore, in any society, the result of obliteration of regularity and security will be the collapse of that society. In contrast, the foundation of any sustainable social organization consists of its fundamental components and its corresponding social regularity and security (Salehi, 2008, 17). Security is feelings of comfort and assurance of non-aggression to life, property and other human rights. This monopoly value is one of the necessities of individual and social life. In the past, fencing around the towns and the dykes around them creates a safe haven for the city and its inhabitants. In this way, the city would be immune to foreign invaders. The most important psychological need is security,

which is considered to be the most important goal of life and substance of mental health. In the classification of needs that was carried out by Maslow, safety after the physiological needs (water and food, etc.) is the second the class of the most important and most basic needs. According to Maslow, in 1968, when the physiological needs were met, people would immediately pay attention to meeting the needs of a higher level, such as security. These needs are closely related and closely related to the physical and social abilities of the environment (Salehi, 1999, 22). The concept of security goes back to defense or self-protection, family, friends and property. The concept of security in urban space is linked to crime on the one hand although it is very different and the on the other hand it is associated with the concept of being a victim of crime and the fear. It should also be distinguished between fear and danger or feeling safe and secure. Scientifically, understanding the effects of crime, namely the fear of crime, is as important as its own, that is, the statistical risks of crime. The reaction to the fear of being victimized makes many people avoid the dangers or at least reduce their exposure to danger. This can lead to the absence of people not only in a particular place, but also in most public spaces (Carmona, 2003: 241). The concept of secure urban space is in versus of insecure urban space concept. The phenomenon of insecurity has two aspects of being objective and subjective and covers all aspects of life. The objective of insecurity is to capture all manifestations of insecurity, including theft, murder, violence and so on and the issue insecurity of subjective aspect includes judging the security of the area and space. Insecurity is the same phenomenon of poverty, and it can be said that poverty is another background of phenomena such as insecurity, reputation, etc. (Salehi, 2008: 107). Jane Jacobs refers to the issue of security and the physical and spatial deterrence of cities and neighborhoods in the book of life and death of major American cities. He states that peaceful urban space is not provided from the beginning by the police, but guaranteed by the presence of the police. Tranquility of urban space is first preserved by the unconscious and complex social networks and standards existing among people. He explains about the lawfulness of a street: "Eyes are always to watch the street, the eyes of those who we always call them natural and true streets. The foot path should be used continuously to be added to the street observation eye and educated street residents (Jacobs, 1964: 41).

IV. STUDY AREA

The metropolis of Isfahan in Central Iran, lies between the latitudes 31 degrees to 33 degrees' north latitude and the eastern length of at least 51 to

53 degrees from the Greenwich meridian (Statistical Yearbook of Isfahan, 2011: 10).
 The geographical boundaries of this city are: Ardestan, Kashan, Golpayegan in the north,

Shahreza in the south, Nayin in east and in the west Friedan city. The Isfahan city, has a great reputation among the cities of Iran and world due to its unique features.

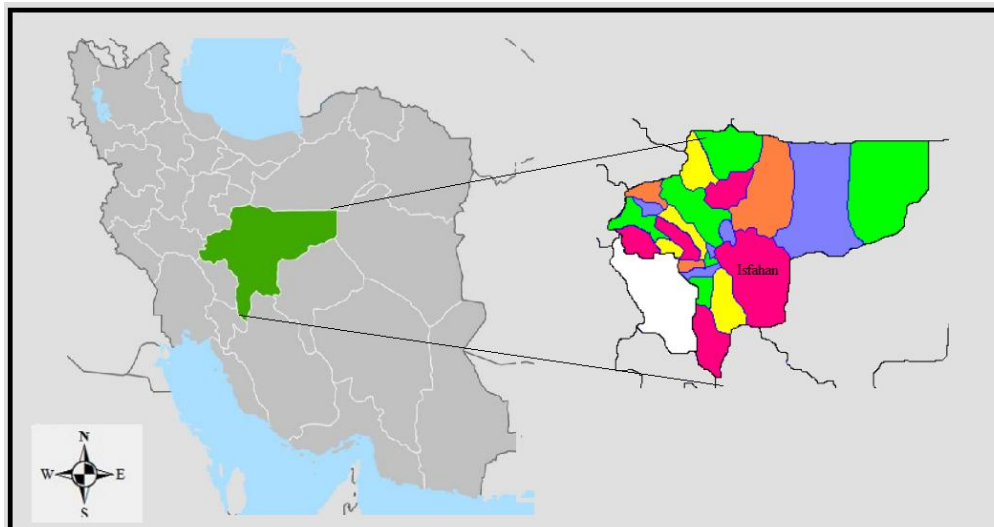


Figure (1): Position of the study area

V. RESEARCH METHODOLOGY

The research method is descriptive-analytic. The theoretical foundations of this research are based on documentary studies, library studies, and on the basis of the study of internal and external experiences resources. The method of collecting data to answer research questions based on the information and statistics available in the municipality and relevant organizations, and the formulation of a popular questionnaire and experts, after evaluating its validity and reliability, it is with experts' opinion polls and the Cronbach alpha coefficient. In order to analyze the information based on the nature of each of the research questions, different software's (SPSS, ARCGIS) will be used. The population of this study is people

living in Isfahan. Which based on the 2011 census is 2,249,243. Based on the Cochran formula, 384 people are selected as sample societies. Also, for deliberation from experts and planners in this area, targeted sampling method is used.

VI. DISCUSSION AND RESULTS

Development of physical indices of Isfahan city

In order to assess the development of physical indicators of Isfahan, a number of indicators were developed to fit the hypothesis and were reflected in the questionnaire and distributed among the sample population. The obtained data was analyzed and tested using SPSS software, which is referred to below.

Table (1): Frequency distribution of respondents in relation to the development rate of physical indicators

Priority based on coefficient of variation	coefficient of variation	Standard deviation	Average	Very much	much	Average	little	very little		Indices
1	0.23	1.154	3.09	34	114	109	83	44	N	Improvement of the surface of the roadways
				8.7	29.2	27.9	21.3	11.3	Percent	
2	0.24	1.147	3.06	36	116	112	76	44	N	Suitable capacity for motor vehicles
				9.2	29.7	28.7	19.5	11.3	Percent	
3	0.25	1.152	3.05	34	115	114	78	43	N	Presence of transversal
				8.7	29.5	29.2	20.	11.	Perce	

							0	0	nt	bridges on the water brook
4	0.26	1.157	3.04	34	115	113	75	47	N	Foot path care facilities
				8.7	29.5	29.0	19.2	12.1	Percent	
5	0.27	1.238	30.3	37	126	99	58	64	N	Comfort and attractiveness of urban furniture
				9.5	32.3	25.4	14.9	16.4	Percent	
5	0.27	1.143	3.03	28	118	113	79	46	N	Maintenance of urban equipment such as boards and communication signs
				7.2	30.3	29.0	20.3	11.8	Percent	
6	0.28	1.149	3.02	69	214	67	14	20	N	Remove multiple users in one place at long hours in one day
				17.7	54.9	21.8	3.6	5.1	Percent	
7	0.29	1.134	3.01	35	115	112	73	49	N	Absorption of compound and composite materials appropriately
				9.00	29.5	28.7	18.7	12.6	Percent	
8	0.30	1.188	2.99	32	118	104	75	55	N	Use enough fences, warning signs and glass and windows
				8.2	30.3	26.7	19.2	14.1	Percent	
9	0.31	1.191	2.98	34	112	107	76	55	N	Observe the standards of lighting space
				8.7	28.7	27.4	19.5	14.1	Percent	
10	0.32	1.154	2.96	27	115	110	80	52	N	Use of symbolic constraints or restrictions
				6.0	29.5	28.2	20.5	13.3	Percent	
11	0.33	1.142	2.93	28	116	107	82	51	N	Sufficient lighting gates and entrances
				7.2	29.7	27.4	21.0	13.1	Percent	
11	0.33	1.169	2.93	25	112	116	76	55	N	Placing phone and newspaper bills or mobile kiosks in mass areas
				6.4	28.7	29.7	19.5	14.1	Percent	

As it is seen in the table above, among the proposed indices, Improvement of the surface of the roadways with an average of 3.09, Suitable capacity

for motor vehicles with an average of 3.06, Presence of transversal bridges on the water brook with an average of 3.05, Foot path care facilities with an

average of 3.04, Comfort and attractiveness of urban furniture and Maintenance of urban equipment such as boards and communication signs with an average of 3.03, Remove multiple users in one place at long hours in one day with an average of 3.02, Absorption of compound and composite materials appropriately with an average of 3.01, Use enough fences, warning signs and glass and windows with an average of 2.99,

Observe the standards of lighting space with an average of 2.98, Use of symbolic constraints or restrictions with an average of 2.96 and Sufficient lighting gates and entrances and Placing phone and newspaper bills or mobile kiosks in mass areas with an average of 2.93, have the highest and the lowest averages respectively.

Table (2): Study of the Development of Physical Indices in Isfahan City

Confidence between Difference 0.95		SIG	T	Average	Indices
Down	Top				
2.87	3.11	0.000	49.336	3.03	Maintenance of urban equipment such as boards and communication signs
2.86	3.10	0.000	49.075	2.99	Use enough fences, warning signs and glass and windows
2.92	3.15	0.000	51.261	2.98	Observe the standards of lighting space
2.85	3.08	0.000	50.236	2.96	Use of symbolic constraints or restrictions
2.93	3.16	0.000	52.297	3.04	Foot path care facilities
2.91	3.14	0.000	51.498	2.93	Sufficient lighting gates and entrances
2.91	3.14	0.000	50.056	3.05	Presence of transversal bridges on the water brook
2.91	3.15	0.000	51.981	3.02	Remove multiple users in one place at long hours in one day
2.82	3.05	0.000	50.895	3.09	Improvement of the surface of the roadways
2.94	3.17	0.000	51.981	2.93	Placing phone and newspaper bills or mobile kiosks in mass areas
2.91	3.15	0.000	50.895	3.06	Suitable capacity for motor vehicles
2.85	3.08	0.000	50.641	3.01	Absorption of compound and composite materials appropriately
2.89	3.12	0.000	51.952	3.03	Comfort and attractiveness of urban furniture

As can be seen in all of the indices mentioned, among the indices (placement of telephone and newspaper bills or mobile kiosks in crime areas, the use of fences and symbolic constraints or actual restrictions, adequate use of railings, warning signs and glass and windows, observance of space lighting standards, optimal upgrades and enough gates, entrances), the average

value of them is less than the midpoint of 3 .The rest of the indices considered above are above the median of 3, which indicates a high level of security based on physical indices.

In following, using SPSS software, we compute all physical indices and analyze the development of all indicators.

Table (3): The study of the effect of physical development in the security of Isfahan city

Confidence between Difference 0.95		SIG	T	Average	Main variable
Down	Top				
2.66	2.90	0.000	40.198	2.80	Physical Indices

As it is seen, according to the obtained average of 2.80, physical indices have a small effect on the safety of the city of Isfahan.

Investigating the Relationship between Security and Physical Characteristics

To test the relationship between security and development of physical indicators, the Chi-square test was used. This test is a statistical test that can be used to determine the systematic relationship between the two variables.

Table (4): Relationship between security and development of physical indicators

	Indices	Value	df	Asymp.sig (2-sided)
Pearson chi-square	Relationship between security and development of physical indicators	384	190	0.000
Likelihood Ratio			190	0.000
Linear-by-Linear Association				
N of Valid Cases				

As you can see, the significance level is less than 0.05. In this way, we can conclude that there is a meaningful relationship between the two variables of physical and security development indicators. It should be noted that in this test the intensity of the

relationship is not recognizable. The agreement table is larger than a 2 * 2 table. We can use the Cramer's V test. In following, we consider the intensity of relationship between these two variables.

Table (5): Severity relationship between security and development of physical indicators

	Indices	Value	APPROX.Sig
Nominal by Nominal	Relationship between security and development of physical indicators	1.965	0.000
Phi		0.978	0.000
Cramer V		384	
N of Valid Cases			

As can be seen in the table above, with a numerical value of 965/1, it can be concluded that the intensity of the relationship is high.

variables of physical and security development indices.

VII. CONCLUSION

The security issue dates back to the history of human being and today, more than ever, there is a necessity of designing a secure society based on consistent relationships and defining to the basic concepts (values and ideals) (realities), (interests and profits), (Inward and outward), (self and other), (individual, community, people and government), etc., and this is not possible except in the light of the belief that the security of the highest value of any society is not possible.

So the aim of this study is Analysis and explanation of security in the urban environment based on physical development. As a case study, Isfahan Metropolis of Iran is investigated. The research method is analytical and based on library, documentary and field studies. SPSS software was used for analysis. The results of research showed that in all of the indices mentioned, among the indices (placement of telephone and newspaper bills or mobile kiosks in crime areas, the use of fences and symbolic constraints or actual restrictions, adequate use of railings, warning signs and glass and windows, observance of space lighting standards, optimal upgrades and enough gates, entrances), the average value of them is less than the midpoint of 3. The rest of the indices considered above are above the median of 3, which indicates a high level of security based on physical indices. Finally, in the second hypothesis, the significance level is less than 0.05. In this way, we can conclude that there is a meaningful relationship between two

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