

The Impact of Social Capital on Sustainable Urban Development in Iran

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Abstract: This study aimed at investigating the effect of social capital on sustainable urban development. The research method and data collection tool was a questionnaire. Face validity and construct validity were used for the validity of the measuring instrument and Cronbach's alpha coefficient was used for reliability. The face validity of the measuring tool was agreed by professors and the construct validity and Cronbach's alpha coefficient were also considered favorable. The statistical population consisted of all citizens over 15 years old in Tehran. The sampling method was multi-stage cluster with the Cochran's formula at a level of 5% error, 2000 people were selected for sampling. The sampling method for selecting citizens was also random. Data analysis method was performed using descriptive indicators as well as correlation coefficient and multivariate regression. The software used was SPSS version 26. The results showed that in the indicators of social capital, Social trust is weak and sustainable development with two indicators of productivity and justice also had a lower average than the theoretical average. Findings related to the testing hypotheses also showed that social capital has a significant and positive effect on sustainable urban development. Also the social capital has a significant effect on productivity. And social trust, and social participation, and shared networks and norms, and social cohesion have a positive effect on productivity. Social capital has a significant and positive effect on justice. And social trust, and social participation, and shared networks and norms, and social cohesion have a positive effect on justice.

Keywords: social capital, social trust, social participation, sustainable urban development.

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Introduction

Since human beings inherently meet their needs in interaction and confrontation with others, so the effects of these actions and reactions are such that their elimination makes human life impossible. Meanwhile, social scientists have identified these actions with a curious attitude in communities and have reached a set of factors which is called social capital and includes concepts such as trust, cooperation and collaboration between members of a group or community which form a purposeful system. Therefore, it seems that recognizing social capital can lead societies to expand different dimensions including sustainable development in its various dimensions such as sustainable urban development and increasing the social and economic performance of individuals in communities (Rajabi Farjad and Madan kar, 1398: 25).

Here, if we consider development means improving living standards and the continuous improvement of the whole society in the social system towards a better and more humane life, what factors can drive this demand in a national unit? And because in recent years, cities have attracted a large percentage of the world's population and according to UN forecasts that by 2030 more than 60% of the world's population will live in urban areas and given that these cities are the main producers of waste in the world and because of the need for energy and food, they have become large parasitic structures that deplete and decompose the world are brutal, polluter and stubborn consumers. So because cities will have significant changes due to social and economic changes result from globalization and change in the fields of communication and information and they will need to reconstruction themselves to keep up with these changes (Motevalli and Fotouhi, 1399: 53). And it is also certain that achieving development,

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civil society, universal criteria and an appropriate bed for social life is formed only in the presence of social capital and this social capital is often visible in between friendship groups, neighbors, and people with the same profession, schoolmates, members of sports clubs and etc. For this reason, social capital can be considered as the main foundation and infrastructure of modernization and development. So because our country is in transition situation and the need for comprehensive planning, in order to achieve sustainable development, especially sustainable urban development and achieve a relative and real stability, identification of the amount and type of social capital and using the factors that increase this social variable as a direct factor in the richness of sustainable urban development is the central goal of this research. It is noteworthy that the city of Tehran as the capital has passed its growth and development stages much faster than a natural rhythm. In such a way that despite the rapid population growth, the area and wide of the city have also grown rapidly in recent decades. The development of Tehran at the beginning of its formation has had a calm and continuous process; But in the years after the 1960s, simultaneously with the changes and social and political developments of the country and increasing immigration to the capital, the city of Tehran has grown rapidly and many high-quality agricultural lands and pastures around the city are under construction. Despite the widespread development of the city to vicinity, there are areas within the city that despite having the facilities and urban infrastructures, have not been used properly and have remained unused or over time due to age and wear have lost their function. After the revolution, in the first decade, there was no coherent development plan in Iran. And after the end of the war, the first development plan (1988-1991) was developed and implemented. One of the main goals of this human development program was to prevent the growth of cities and to prevent consumerism and to emphasize investment (Vadiea, 2017: 53-54).

But this program, was not very successful in stopping the growth of cities and migration , like other programs after the revolution absence and the formation of suburbs and worn-out structures are also negative consequences or lack of development policies in Iran so that the worn texture of the central areas of Tehran is one of such textures despite the lack of urban facilities on the one hand and the concentration of business activities on the other hand, has not residential desirability and has many physical, social and cultural problems. At present, our country is facing the problem of increasing population and their habitation and this problem will continue in the future decades. To solve this problem, it is necessary that adopt appropriate urban development policies which has a relative advantage and renovation of worn-out and dysfunctional urban structures is within the scope of this policy. Therefore, by reviving and improving the situation in the central areas of Tehran and replacing the endogenous development model it is possible to prevent further sporadic works and destruction of the environment around the city. Housing more population in the central areas of cities rather than suburbs, limits the adverse effects of urban development on the natural environment. In addition, renovation and improvement measures can reduce energy consumption in older buildings which are located in the central and old areas of cities and are not energy efficient. The main question is that is there any relationship between social capital and its constituent elements in raising the level of sustainable urban development in Iran focusing on the city of Tehran?

Theoretical literature

Definition of social capital

The common definition of social capital in the mainstream of American sociology, especially in its functionalist narrative, is: bilateral relationships of interactions and networks that emerge between human groups and the degree of trust found among a particular group or community as a consequence of commitments and norms connected with the social structure (Mahfud, Mochamad, Putu, Yogiana, 2020: 10). In contrast, European sociologists use the concept in the study of the subject that how mobility of links related to social networks, strengthens social hierarchy, and differentiated power. However, the common points of these two views on the usefulness of social capital is in increasing some characteristics such as education, social mobility, economic growth, political superiority and finally development(Omidian, Najafi Hadak and Kerati Negahbani, 1399: 27). Social capital is a capacity (social essence) that facilitates coordination and cooperation in society and the group. In fact, social capital can be considered as a complex concept which has three dimensions: structure, content and function, and its social structure is the same as the social communication network and its content is trust

and social norms and its function is the same as social interaction (Haimin, 2018: 76). Robert Putnam introduces social capital as a set of trusts, norms, and networks of connections which facilitates cooperation for mutual benefit and its result is different types of collective action. He considers three indicators for social capital: awareness, participation, and civic institutions. Social trust is the ability to be kind to others in social relationships where there are two people or two groups of confiding and to be trusted. Social participation is a voluntary activity in which a person participates in groups and associations in order to solve social problems or because of interest in them. Also refers to a set of social relations and norms of action which is measured based on values and norms and is defined as common networks and norms. Social cohesion means that the group has maintained its unity and conforms to its unifying elements (Poursoltani Zarandi and Yousefi, 1396: 39).

Theories of social capital

The social capital variable in this study is taken and combination of the theories of Coleman, Bordiou and Fukuyama. In defining social capital, Coleman used of its role and function and provides a functional definition of social capital. In his view, social capital is not a single object but is different types of things that have two features in common: First, they all involve an aspect of a social construct; second, they facilitate certain actions of people within a structure (Williams, Huggins, Thompson, 2017: 10). He says that a certain form of social capital was valuable in facilitating a certain action. He says that a certain form of social capital was valuable in facilitating a certain action and may be useless or ineffective for other actions. Coleman believes that social capital is neither in individuals nor in the physical means of production. He considers these characteristics as social capital: 1) obligations created, 2) access to information, 3) social norms, 4) authority and 5) identity. According to Coleman, social capital ultimately brings human capital to individuals (Sun, Xiao, Lyu, Zhao, 2020: 206).

Bordiou

According to Bordiou, social capital is a collection of potential and actual resources which is the result of ownership of a lasting network of institutionalized relationships between individuals and in other words, membership in a group to access that group's resources. In fact, network links must be of a certain type, which is, positive and based on trust (khaleghi, Abbasabadi and Hashemi Razini, 1396: 89). According to Bordiou, social capital can ultimately bring economic capital. According to Bordiou, social capital has two basic indicators: 1) trust 2) bond. Bordiou's use of social capital is based on the understanding that how people improve their economic situation in a hierarchical social environment (capitalist society) by investing in group relationships. For this reason, his approach can be considered instrumental, individualistic, influenced by Marx's theory of capital, and more contradictory (Nan, Spencer, Sun, Lou, 2020: 133).

Fukuyama

For Fukuyama, social capital is the existence of a certain set of informal norms or values that the members of the group which cooperation and collaboration are permitted between them participate in it. Participation in values and norms does not in itself produce social capital because these values and norms may lead to other norms and values. Fukuyama confirms two points about social capital:

1. 1-Social capital belongs to groups, not individuals; in the other words, the norms that form foundation of social capital make sense if more than one person is involved.
2. 2- Cooperation and collaboration is essential for all social activities (whether good or bad). So informal values and norms can be both positive and negative (Rajabi Farjad and Madankar, 1398: 28).

According to Fukuyama, social capital has a significant impact on the efficiency of modern economic performance and it is a necessary condition for the stability of liberal democracy. Social capital is the cultural component of modern societies that in other ways, from the Age of Enlightenment onwards were organized based on official institutions, law's governance and rationality (Lang, Fink, 2019: 29).

Definition of sustainable urban development

As the main consumers and distributors of goods and services, today, cities are the focus of the issue of sustainability. Therefore, in order to achieve a real sustainable situation in cities, it is necessary to formulate policies to achieve sustainable cities. To this end, an important issue called sustainable urban development is taken into consideration during the 1990s and to date. In many cities around the world fundamental issues and challenges raise the issue of urban sustainability such as traffic and land density, abandoned and uninhabited buildings, land use change, noise, water pollution and many environmental issues. Therefore, according to metropolitan issues and problems, the dimensions and principles of sustainable urban development must be considered (Faramarz, 1400: 20). Sustainable urban development can be defined as efficiency in the optimal use of land and encourage the reuse of buildings to create the possibility of social justice in the bed of space and social equality and make it possible to improve the quality of the urban environment and citizen satisfaction by providing welfare, social, municipal services and civil rights. Given the sustainable urban development emphasis on productivity it can be said that it is actually a dynamic equation, between natural systems and social - economic systems which guarantees the production of food and other goods for the people without being necessary for the system. Sustainable urban development plays an important role in urban justice. The capacity of society to equitably distribute opportunities and threats arising from the application or change of surrounding natural systems is called justice like the distribution of what comes from the development process. Thus, sustainable urban development emphasizes the proper use of land and the spread of justice (Motevalli and Fotouhi, 1399: 54).

The theory of sustainable urban development raises issues such as the prevention of urban and regional environmental pollution, Reduction of production capacities of local, regional and national environment, recycling support, lack of support for harmful development and closing the gap between rich and poor. It also attaches great importance to planning in order to achieve these goals and believes that the government should fully support the urban environment. This theory examines sustainability of the shape of the city, sustainability model of settlements, and Effective model of transportation in the field of fuel consumption as well as the city in the hierarchy of the urban area. Because it knows the creation of the city only for the pleasure of urban dwellers. There is a close connection between sustainable development and the issue of power. Where some believe that social justice and environmental balance are correlative and achieving one without the other one is impossible (Armaghan and Khakpour, 1399: 82). The sustainable development attitude is based on the idea that technology cannot compensate for any reduction in natural resources and natural capital is a complement to man-made capital, in this regard, the United Nations supports the foundations and conceptual vision of sustainable development and introduces the existence of appropriate cultural contexts as a way to achieve sustainable development which can be achieved by educating and informing the people. Accordingly, sustainable urban development takes on an efficient aspect in the development of these concepts: bedding social justice and citizenship, bedding citizenship participation and social solidarity, strengthening the foundation of social institutions and the foundation of the family, strategic approach to manifestation of sustainable urban development, spreading the customs and culture of urbanization, assistance and organization of public and private bodies, effectiveness of policies and policy programs in the metropolitan area and expanding citizenship rights and optimizing civil relations.

(Amiri, 1399: 33). Sustainable design in the urban structure is based on three basic principles: saving resources can be considered as the first principle which seeks to reduce the use of non-renewable resources in the construction and operation of urban buildings by using resources efficiently. The second principle is based on life cycle design which includes the environmental results and consequences of the entire life cycle and urban construction resources from the preparation stage to the return to nature. The third principle is known as human design which is rooted in the need to preserve the chain elements of biological systems and it leads to the continuity of human life and survival. Accordingly, urban design and sustainable architecture should improve the quality of work and living environments which increases productivity and reduces human stress and improves living conditions which brings to mind the same concept of social welfare and citizenship. The structure of urban management must be based on the principles that actually form the basis of this structure (Kavorizadeh, 1399: 62).

Research background

Darvishi et al. (1399) conducted a study entitled "Analysis of sustainable urban development based on the indicators of social capital and public trust (Case study: District 2 of Tehran)". The purpose of this study was sustainable urban development based on the characteristics of social capital and public trust. The method of this research was based on a case study of descriptive-analytical type and correlation coefficient. The data collection tool was a questionnaire which analyzed by using of SPSS software and its statistical methods such as Pearson correlation analysis and mean analysis. According to the results of the research, social capital and public trust have an impact on sustainable urban development. Indices of social capital affect sustainable urban development. Indices of public trust affect sustainable urban development. And it can be concluded that in sustainable urban development, it can be considered two components of social capital and public trust.

Azad et al. (1398) conducted a study entitled "Study of the relationship between social capital and sustainable urban development (Case study: Mazandaran province)". In this article, the relationship between social capital and sustainable urban development among the urban population over 20 years of age in Mazandaran province was investigated. Putnam, Fukuyama, Misra, Einstein and Driskell theories have been used to investigate the relationship between these two variables. Required data were collected from a statistical sample of 400 people using a survey method and a questionnaire tool and was analyzed using SPSS and Amos software. The results showed that social capital and all its variables have a strong and significant direct relationship and impact on sustainable urban development.

Salavardizadeh et al. (1398) conducted a research entitled "Analysis and evaluation of the role of social capital in district sustainable development (Case study: Ilam city)". The purpose of their research was to investigate the role of social capital and its components in local sustainable development of Ilam city. The research method was descriptive-analytical. The statistical population of this study was all residents of districts in Ilam which 383 of them were selected using Cochran's formula by cluster sampling to distribute the questionnaire. The results of examining the hypotheses showed that the variables of normativeness, civic participation, and social cohesion have a positive and significant effect on the sustainable development of Ilam districts. The variables of connection to social networks and social security have the opposite effect on the sustainable development of Ilam city. And the variable of social trust has no effect on the sustainable development of the city.

Rezaei-Mehr et al. (1396) conducted a research entitled "The role of social capital in sustainable management of urban districts with a district-based planning approach". The main purpose of this study was to investigate the role of social capital in the sustainable management of urban districts which the study area was selected Tehranpars, Vahidiyeh, Narmak and Majidiyeh districts in the municipality of District 8 of Tehran Municipality.

Sample size according to Cochran's formula is 321 people as random statistical samples and data analysis methods, descriptive and inferential statistics analysis methods and the use of specialized SPSS software for data analysis. The results and findings of the study indicated that the component of social trust was more effective than other components in the planning of the base district.

Javadzadeh Aghdam and Alavi (1395) conducted a study entitled "Comparative Analysis of the Role of Social Capital in Neighborhood Sustainability in Worn and New Tissues (Case Study: Narmak and Yousefabad Neighborhoods)". This research is of descriptive-analytical type. The results indicate that there is a direct and significant relationship between social capital and neighborhood stability.

Ahad nejad rooshani et al. (1393) conducted a study entitled "The role of social capital in sustainable local development (Case study: Narmak neighborhood of Tehran)". The purpose of their research was to explain sustainable local development and its components and the impact of social capital as an asset-based approach in achieving stability in Narmak neighborhood of Tehran. According to the research methodology, the approach is quantitative- analytical. To estimate the sample size using the Cochran's formula 383 residents of Narmak neighborhood were selected using random sampling to distribute the questionnaire. The results showed that the Pearson coefficient among all components of social capital

and sustainable development is more than 0.92. This indicates a positive and significant relationship between the components of social capital and sustainable local development.

Knollenberg et al (2021) conducted a study entitled "Sustainable development of urban tourism, handicrafts and beverage tourism with the participation of social capital". This research was conducted qualitatively with interview tools. The statistical population was citizens of the state of North Carolina. After 30 interviews, the results showed that social capital is a bridge and a cooperation link between stakeholders, support for new members and partnerships between craft and beverage owners; this cooperation plays an important role in environmental protection. Social capital is an important resource for the sustainability of handicrafts, beverage industries and sustainable local development.

Pawlewicz and Pawlewicz (2020) conducted a study entitled "Interregional diversity of social capital and sustainable development; A case study of the Polish Voivodeship region. This research was conducted as a survey and by using a questionnaire. 300 residents of Voivodeship were selected by random sampling. The results showed that social participation, interactive and cooperation based norms, and social cohesion have a positive impact on sustainable urban development.

Ndegwa (2019) conducted a study entitled "Development of social capital through social groups and its relationship with sustainable urban development." The main purpose of this study was to understand the ability of individuals in social groups to participate in sustainable urban development. The study was conducted in the slums of Nairobi – Cariobangi. It was conducted qualitatively with interview tools. The results showed that improving local community feeling, level of trust, and access to information, social support and social participation lead to the local community participation in urban development processes. The most important result is that increasing social trust is the main factor of cooperation in sustainable urban development.

Guzhavina & Mekhova (2018) conducted a study entitled "Social Capital; "An influential factor in the sustainable development of the region." Given that the perspectives of sustainable development are expanding from the macro level to the micro level, the aim of this study was to investigate the effect of social capital on sustainable regional development. This research was conducted in a survey using a questionnaire tool. The statistical population was Slovenian citizens that 300 people were selected by random sampling. The results showed that Social capital and its four dimensions include; Social participation, social trust, social cohesion and cooperation networks have a significant and positive impact on sustainable regional development.

Kato (2017) conducted a study entitled "Participation of mineral industry clusters in sustainable development; A case study of the role of human and social capital in the Richards Bay area of South Africa. The aim of this study was to identify and explain the role of human and social capital in the development of industrial clusters. This study was conducted qualitatively and the data collection tool was interview. After conducting 32 interviews with local people, stakeholders and owners of industrial companies, the results showed that Companies related to the aluminum industrial cluster contribute to the development of human capital by investing in the field of health and education. But the development of industrial clusters and the consideration of environmental criteria in its development require attention to human capital and laws. One of the reasons for the failure of such industrial clusters is the lack of trust between residents and trust between residents and managers of industrial clusters. This caused to lack of formation an atmosphere of dialogue and cooperation. Naturally, there is no sustainable regional development. The results showed that although the importance of industrial clusters in the industrial development of the region is very high, but social capital has a facilitating role in promoting local collective action and supporting industrial cluster action.

The result of the evaluation of research backgrounds show that in most studies, social capital and its dimensions have a positive effect on sustainable urban, regional and local development. In most of the mentioned researches, the component of social trust and social participation has the greatest relevance and impact on sustainable urban development in domestic and foreign research. Also, in most studies, social capital plays the role of facilitator and catalyst in sustainable urban development, respect to

environmental standards, development of urban justice and prevention of disruption of natural stability and urban sustainability.

Theoretical Framework

Most sociological researches and theories consider the field of social capital development as an adhesive which help to economic development and has a strong functional role in urban issues such as the environment and improving the viability of urban settlements. Putnam, for example, showed in his research in Italy that Social capital is effective in reducing corruption, sustainable urban development, transparency, and preventing corruption. According to Fukuyama in urban society, coherent interaction between citizens and urban planning reduces the costs that management has to pay for the city. In other words, effective and trusting interactions between citizens and urban management organizations have led to spending part of the cost on infrastructure and providing conditions for sustainable urban development. Social capital increases the return on investment in physical capital and human capital. Therefore, social capital is considered as a source of collective ownership belonging to regions, cities, neighborhoods, districts and villages which can provide the basis for public welfare and development. Many urban designers and planners introduce social capital as a tool for sustainable development of social, economic, cultural and economic dimensions in urban and rural areas. Given that social capital is a powerful tool for participation in urban affairs can be used in the field of environmental protection and prevents the disruption of the socio-economic and natural life stability of human life.

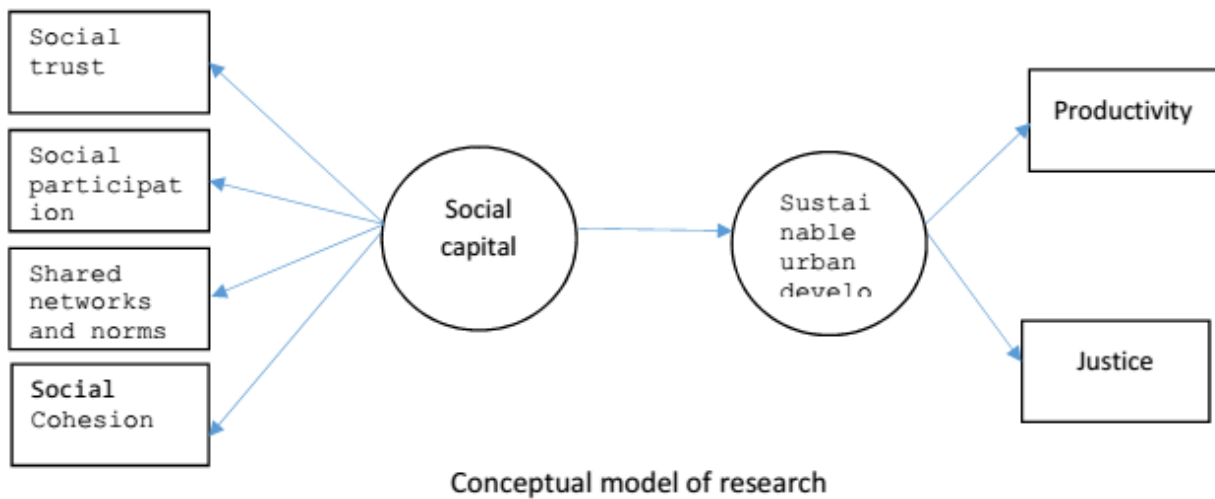
Research Hypotheses

The main hypothesis

- There seems to be a significant relationship between social capital and sustainable urban development.

Partial hypotheses

- 1- There seems to be a significant relationship between social capital and productivity
- 2- There seems to be a significant relationship between social capital and justice.



Research Methods

This research was a survey and the data collection tool was a questionnaire. In this research, Nahapit, Kushal (1998) standard is used for the independent variable, namely social capital and its 4 components. And also, to measure the dependent variable, namely sustainable urban development with two components of productivity and justice a researcher-made questionnaire based on theoretical literature and research background was used. The statistical population of the present study was all people over 15 years old in Tehran which are considered as active population. In this study, multi-stage cluster sampling was used. First, Tehran was divided into 5 zones: east, west, center, south and north. Then two regions were selected from each cluster for sampling, two regions from each zone and two

neighborhoods from each region. Due to the fluidity of the statistical population, The Cochran's formula was used for an unknown statistical population at an error rate of 5%. For each region, 384 people were obtained and totally, the size of sample was 1925 people. Due to the possibility of receiving incomplete questionnaires, 400 samples were selected for each area and totally 2000 questionnaires were distributed and collected. The sampling method for distributing the questionnaire among the residents was also random.

Validity and reliability of the questionnaire

In the present study, face and construct validity was used for validity. In this study, the questionnaire was prepared after approval and modification by supervisors and consultants (face validity) as well as matching with the results and findings of empirical backgrounds and theoretical foundations. Then, confirmatory factor analysis was used for construct validity. Verification factor analysis was performed using Smart software. The results showed that all factor loads of items with their variables were more than 0.05 and the significance level was greater than 1.96 which indicated that the items were appropriate for the variables. Convergence validity indices were also used and the results showed that Cronbach's alpha value and (combined reliability) CR for all variables above 0.7 and the mean value of the extracted AVE variance above 0.5 has been achieved. Therefore, all structures have appropriate convergent validity. Cronbach's alpha coefficient was used for reliability and the results according to Table 1 show that all variables have an alpha coefficient higher than 0.7 so they are stable.

Table (1): Results of Cronbach's alpha coefficient and convergence validity of variables

convergence validity indicators				Alpha coefficient	Number of questions	dimension	variable
⁴ AVE	³ CR	rho_A ²	Cronbach's Alpha ¹				
0.605	0.884	0.843	0.836	0,702	5	Social trust	Social capital
0.609	0.886	0.851	0.839	0,779	5	Social participation	
0,790	0.822	0.787	0.732	0,769	5	Shared networks and norms	
0.582	0.874	0.832	0.822	0,708	5	Social cohesion	
0.518	0.841	0.776	0.761	0,801	5	efficiency	Sustainable urban development
0.597	0.881	0.831	0.830	0,779	5	justice	

Analysis of findings

A. Descriptive findings

-The results related to contextual variables showed that 54% of respondents namely 1081 respondents were female and 46% of respondents namely 919 respondents were male. In terms of age: the age group less than 25 years with 38% and 758 people and the age group of 26 to 35 years with 32% and 633 people have the highest number. Meanwhile, the respondents in the age group of 36 to 45 years are in the third place with 21% or 425 people. Respondents over 56 years with 5% equals 97 people and respondents aged 46 to 55 years with 4% and 87 people are in the last ranks. In terms of education, Holders of a bachelor's degree with 23%, equals 455 people, Diplomas with 21% equals 412 people, And masters with 19% or 389 people have the highest number. Holders of undergraduate education 16% equivalent to 328 people, Associate degree 11% equals 215 people, and PhD and above with 10% equivalent to 201 people are in the next places. In terms of marital status, 57%, equivalent to 1135 respondents were single and 43%, equivalent to 865 people, were married. In terms of employment status, 34% equivalent to 489 people were collegian

1. Cronbach's alpha = acceptable value above 0.7

2. Credit factor = acceptable value above 0.7

3. Composite Reliability: Composite reliability (structural reliability coefficient = acceptable value above 0.7

4- Average Variance Extracted (AVE). Mean extracted variance = acceptable value above 0.5

, and 24%, equivalent to 489 people, were employed which have the largest number. Housewives with 17% or 356 people, Students with 12 percent equals 258 people and the unemployed with 10 percent, equivalent to 201 people, are in the next ranks in terms of number. Retirees are only 3%, equivalent to 53 people as the minimum number.

-Also, in relation to the research variables, the results showed that social trust with an average of 14.77 is lower than the theoretical average. Therefore, it has a relative weakness. While social participation with an average of 15.18 and shared networks and norms with an average of 15.50 and social cohesion with an average of 17.97 are higher than the theoretical average and are in good condition. In total, social capital with an average of 63.46 has an average higher than the average of the questionnaire (60) which shows that social capital is in a favorable position. In relation to the components of sustainable urban development also productivity with an average of 14.20 and justice with an average of 13.23 are lower than the theoretical average (15) and overall, sustainable urban development with an average of 28.15 is less than the theoretical average (30).

-Kolmogorov-Smirnov test was used in connection with the normality of research variables. The results showed that all variables have a significance level greater than 0.05. Therefore, the distribution of data is normal.

Table (2): Results of describing research variables

Significance level	The value of z	Changes coefficient	Standard deviation	Obtained average	Theoretical average	Number of items	variable
0,120	0,806	19.00	4.08638	14.7790	10	0	Social trust
0,230	1,203	20.00	4.23710	15.1870	10	0	Social participation
0,021	1,632	17.00	3.63967	15.5200	10	0	Shared networks and norms
0,100	1,690	18.00	4.02548	17.9750	10	0	Social cohesion
0,630	1,368	67.00	14.01173	63.4610	60	0	Social capital
0,426	0,098	17.00	3.50681	14.2060	10	0	productivity
0,369	0,908	18.00	3.98292	13.2330	10	0	justice
0,204	0,687	61.00	7.85047	28.1520	30	0	Sustainable urban development

B. Explanatory findings

Given that the distribution of data is normal, multivariate regression was used simultaneously. The results of testing the hypotheses are given in Table 3.

Table (3): Test results of hypotheses

t-value	B	β	F	sig	r	path	Hypothesis
24/811	0,152	0,476	32/182	0,000	0,476	Social capital and sustainable urban development	main
41/253	0,368	0,725	43/685	0,000	0,725	Social capital and productivity	first
38/274	0,258	0,524		0,000	0,524	Social trust and productivity	
51/684	0,211	0,563		0,000	0,563	Social participation and productivity	
34/020	0,325	0,635		0,000	0,635	Shared networks and norms on productivity	
45/913	0,258	0,616		0,000	0,616	Social cohesion on productivity	
12/358	0,352	0,645		52/365	0,000	0,645	

۱۵/۳۶۰	۰/۱۰۲	۰/۲۹۶	۰/۰۰۰	۰/۲۹۶	Social trust and justice
۱۹/۲۳۷	۰/۲۱۵	۰/۳۵۷	۰/۰۰۰	۰/۳۵۷	Social participation and justice
۲۷/۳۰۵	۰/۲۸۹	۰/۴۳۰	۰/۰۰۰	۰/۴۳۰	Shared networks and norms on justice
۲۷/۳۰۵	۰/۱۹۲	۰/۴۳۸	۰/۰۰۰	۰/۴۳۸	Social cohesion on justice

According to Table 3 for the main hypothesis, the significance level was less than 0.05 ($P < 0.05$) therefore, there is a relationship between the two variables, and the path coefficient is also positive ($r = 0.476$). Therefore, there is a significant and positive relationship between social capital and sustainable urban development.

The value of f is also significant at a confidence level of more than 95% and the error level is less than 0.05. This shows the significance and non-randomness of the research variables model ($F=32.183$). Accuracy in regression coefficients also shows that the value of t -value is greater than 1.96 so the effect is significant (t -value = 24.811). And the beta value is also positive 0.476 so the effect is positive ($\beta = 0.476$). In other words; Social capital has a positive effect on sustainable urban development. In the first hypothesis, it is observed that the level of significance for the relationship between social capital and productivity is less than 0.05 ($P < 0.05$). So there is a relationship between the two variables, and the path coefficient is also positive ($r = 0.725$). Therefore, there is a significant and positive relationship between social capital and productivity. Also, the value of f is significant at the level of confidence of more than 95% and the level of error less than 0.05 which indicates the significance and non-randomness of the research variables model ($F = 43.685$). In relation to the effect of the four components of social capital on productivity the results also show that the level of significance of social trust, social participation, shared networks and norms and social cohesion on productivity is greater than 1.96. Therefore, these 4 components have a significant effect on productivity (t -value > 1.96). Social trust with an impact factor of 0.524 and social participation with an impact factor of 0.563, and shared networks and norms with an impact factor of 0.635 and social cohesion with an impact factor of 0.616 have a positive effect on productivity.

The second hypothesis also shows that the level of significance for the relationship between social capital and justice is less than 0.05 ($P < 0.05$). Therefore, there is a relationship between the two variables, and the path coefficient is also positive ($r = 0.645$). Thus, there is a significant and positive relationship between social capital and justice. Also, the value of f is significant at the level of confidence of more than 95% and the level of error less than 0.05 which indicates the significance and non-randomness of the research variables model ($F = 52.365$). In relation to the effect of the four components of social capital on justice the results also show that significance level of social trust, social participation, networks and common norms and social cohesion on justice is greater than 1.96. Therefore, these 4 components have a significant effect on justice (t -value > 1.96). Social trust with an impact factor of 0.296 and social participation with an impact factor of 0.357, and shared networks and norms with an impact factor of 0.430 and social cohesion with an impact factor of 0.438 have a positive effect on justice

Discussion and conclusion

One of the important issues regarding urban issues is the concept of sustainable urban development which is a development based on real needs and rational decisions taking into account various economic, social and environmental considerations. In 1980, for the first time, the Sustainable Development Plan was mentioned in the report of the World Organization for the Protection of Natural Resources. Sustainable development is the intersection of society, economy and environment. Sustainable urban development seeks to balance human relationships with the environment and with socio-economic life. Accordingly, the quality of social relations is becoming increasingly important. Whatever the quality of social relationships based on trust and is influenced by common values, norms and values that people in the community share, responsibility, social participation and cooperation and social solidarity are promoted And a phenomenon called social capital is born that is the result of trust, mutual interactions and common norms. Having an acceptable amount of social capital facilitates social actions so that in times of crisis, social capital can be used to solve social, environmental and economic problems as the

main source of problem solving and modify existing processes. In the present study, it was examined and evaluated the effect of social capital on sustainable urban development in the city of Tehran. In the descriptive findings section, the results showed that among the components of social capital, social trust was weak but the three components of social participation, shared networks and norms, and social cohesion were in good position. The two components of productivity and urban justice and overall sustainable urban development were in a weak position. Findings related to the hypothesis test also showed that social capital has a positive effect on sustainable urban development. That is, as social capital increases, so does sustainable urban development. Also social capital and its four components including social trust, social participation, shared networks and norms, and social cohesion have a positive effect on productivity and urban justice. That is, as trust, social participation, shared networks and norms, and social cohesion increase, the level of productivity and urban justice is also improving. These findings are all in line with the findings of Darvishi et al. (1399), Azad et al. (1398), Salavardizadeh et al. (1397), Rezaei Mehr et al. (1396), Javadzadeh Aghdam and Alavi (1395), Ahad nejad roshani et al. (1393), Knollenberg et al (2021), Pawlewicz and Pawlewicz(2020), Ndegwa(2019), Guzhavina& Mekhova(2018) and Kato (2017). It also confirms the views mentioned in the theoretical framework including the theories of Fukuyama, Bordiou, Putnam and Coleman. Social capital creates innovation in ways of protecting the environment and sustainable urban development. In a city like Tehran, basically solving socio-economic problems and achieve a sustainable life depends on strengthening social capital. In particular, due to population density and increasing urban problems, some experts believe that Tehran has lost its viability and most citizens do not have an acceptable level of trust, participation, solidarity and interactive social norms especially in the last three years, that rampant inflation in the areas of housing, food, and livelihoods has led to migrating many people to the countryside or even to towns. Others in the city of Tehran according to their facilities have used the land in order to increase profitability. Incidentally, the social capital that exists between some land capitalists increased construction and often faced sustainable urban development and urban justice with many problems. Land use has risen; the environment has become increasingly degraded. If sustainable development is fair namely, there be comprehensive participation and balanced planning, social justice is also expanding in the city and a cycle of relative welfare and the strengthening of social capital among citizens is also institutionalized. Therefore, the ultimate goal of sustainable development in the metropolis of Tehran is increasing human capacity for sustainable consumption and improving the quality of human life. The more this goal can be achieved; informed, creative and efficient citizens are trained who will feel more responsible in society and develops social capital. It seems that the current situation in Tehran is very complicated and social capital is basically an important challenge in this city. The economic problems of the last three years seem to have reduced trust-based social relations. But there are still levels of trust and cooperation in various areas. Incidentally, when there are many socio-economic issues and problems, social capital is emerging more effectively; because it can strengthen the cycle of trust and development by solving problems. In this regard, the following suggestions are presented;

- Considering that social capital had a positive effect on sustainable urban development it is suggested that citizens in different neighborhoods, with the help of local authorities or influential people, form cooperation groups in the field of environmental protection and neighborhood cleanliness
- Considering the positive effect of social trust on productivity, it is suggested that with the cooperation of local residents and the deputy for urban transportation, especially in low-income and poor neighborhoods be located in a suitable place jobs that pollute the environment.
- Since the level of social trust among citizens was slightly lower than average it is suggested that form popular organizations in cooperation with the local residents to investigate local problems, knowing the members of the neighborhood, and strengthen social trust including local cooperation organizations between women or youth.
- It is suggested in order to have better educational and cultural facilities in the neighborhoods, with the help of benefactors from rich areas, be created educational and cultural centers in poor neighborhoods in collaboration with the local influential network, neighborhood leaders and the local charitable association.

References

1. Ahad nejad roshani, M.; Yari Qoli, and; Ojaqloo, R. (1393). The Role of Social Capital in Sustainable Local Development (Case Study: Narmak Neighborhood, Tehran). *Urban Sociological Studies (Urban Studies)*. 4 (12): 25-5.
2. Ahad nejad roshani, M.; Yari Qoli, and; Ojaqloo, R. (1393). The Role of Social Capital in Sustainable Local Development (Case Study: Narmak Neighborhood, Tehran). *Urban Sociological Studies (Urban Studies)*. 4 (12): 25-5.
3. Amiri, F (1399). The role of social capital in sustainable urban development (Case study: Sanandaj city). Third National Conference on Law, Social Sciences and Humanities, Psychology and Counseling, Shirvan.
4. Amiri, F. (1399). The role of social capital in sustainable urban development (Case study: Sanandaj city). Third National Conference on Law, Social Sciences and Humanities, Psychology and Counseling, Shirvan.
5. Armaghan, M; Khakpour, F (1399). Strategies for sustainable development in urban housing. International Conference on Civil Engineering, Architecture, Development and Reconstruction of Urban Infrastructure in Iran, Tehran.
6. Armaghan, M; Khakpour, F. (1399). Strategies for sustainable development in urban housing. International Conference on Civil Engineering, Architecture, Development and Reconstruction of Urban Infrastructure in Iran, Tehran.
7. Azad, m; Rahmani Firoozjah, As; Abbasi Asfajir, A.A. (1398). Investigating the Relationship between Social Capital and Sustainable Urban Development (Case Study: Mazandaran Province). *Urban Sociological Studies*, 9 (30), 89-124.
8. Azad, m; Rahmani Firoozjah, As; Abbasi Asfajir, A.A. (1398). Investigating the Relationship between Social Capital and Sustainable Urban Development (Case Study: Mazandaran Province). *Urban Sociological Studies*, 9 (30), 89-124.
9. Darvishi, M, R; Ghaedi, M; Keshishian Siraki, G; TohidFam, M (1399). An Analysis of Sustainable Urban Development Based on Social Capital and Public Trust Indicators (Case Study: District 2 of Tehran). *Journal of Urban Research and Planning*, 11 (40), 201-216.
10. Darvishi, M, R; Ghaedi, M; Keshishian Siraki, G; TohidFam, M (1399). An Analysis of Sustainable Urban Development Based on Social Capital and Public Trust Indicators (Case Study: District 2 of Tehran). *Journal of Urban Research and Planning*, 11 (40), 201-216.
11. Faramarz, M. (1400). Investigating the indicators of sustainable Urban, physical development management, Islamic ideal from economic, social and biological perspectives and review of urban management. The first international conference on urban planning, architecture, civil engineering, and environment.
12. Faramarz, M. (1400). Investigating the indicators of sustainable Urban, physical development management, Islamic ideal from economic, social and biological perspectives and review of urban management. The first international conference on urban planning, architecture, civil engineering, and environment.
13. Guzhavina & Mekhova (2018). "Social Capital; "An influential factor in the sustainable development of the region."
14. Guzhavina & Mekhova (2018). "Social Capital; "An influential factor in the sustainable development of the region."
15. Guzhavina, Mekhova. (2018). "Social Capital; "An influential factor in the sustainable development of the region".
16. Javadzadeh Aghdam, e; Alawi, SA (1395). Comparative Analysis of the Role of Social Capital in Neighborhood Sustainability in Worn and New Tissues (Case Study: Narmak and Yousefabad Neighborhoods). *Journal of Urban Research and Planning*, 7 (24), 83-104.
17. Javadzadeh Aghdam, e; Alawi, SA. (1395). Comparative Analysis of the Role of Social Capital in Neighborhood Sustainability in Worn and New Tissues (Case Study: Narmak and Yousefabad Neighborhoods). *Journal of Urban Research and Planning*, 7 (24), 83-104.
18. Kato (2017). "Participation of mineral industry clusters in sustainable development; A case study of the role of human and social capital in the Richards Bay area of South Africa".

19. Kaverizadeh, A. (1399). Investigating the role of citizen participation in urban management and sustainable development in Ahvaz. 10th National Conference on Urban Planning, Architecture, Civil Engineering and Environment, Shirvan.
20. Khaleghi Abbasabadi, Samira and Hashemi Razini, Hadi (1396). The relationship between entrepreneurial personality traits and social capital and psychological capital of executives, 2nd International Congress of Humanities, Cultural Studies, Tehran.
21. Khaleghi Abbasabadi, Samira and Hashemi Razini, Hadi. (1396). the relationship between entrepreneurial personality traits and social capital and psychological capital of executives, 2nd International Congress of Humanities, Cultural Studies, Tehran.
22. Knollenberg et al (2021). "Sustainable development of urban tourism, handicrafts and beverage tourism with the participation of social capital".
23. Knollenberg et al (2021). "Sustainable development of urban tourism, handicrafts and beverage tourism with the participation of social capital"
24. Lang,R; Fink,M. (2019). "Rural Social Entrepreneurship: the Role of Social Capital within and Across Institutional Levels". Journal of Rural Studies. DOI:10.1016/j.jrurstud.2018.03.012.
25. Lang,R; Fink,M. (2019). "Rural Social Entrepreneurship: the Role of Social Capital within and Across Institutional Levels". Journal of Rural Studies. DOI:10.1016/j.jrurstud.2018.03.012.
26. Mahfud, T; Mochamad,T; Putu,S; Yogiana,M. (2020). "The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: the mediating role of psychological". European Research on Management and Business Economics DOI: 10.1016/j.iemeen.2019.12.005.
27. Mahfud, T; Mochamad,T; Putu,S; Yogiana,M. (2020). "The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: the mediating role of psychological". European Research on Management and Business Economics DOI: 10.1016/j.iemeen.2019.12.005.
28. Motevalli,S; Fotouhi, F (1399). Security of the city and urban spaces in the direction of sustainable development of the city. International Conference on Civil Engineering, Architecture, Development and Reconstruction of Urban Infrastructure in Iran, Tehran.
29. Motevalli,S; Fotouhi, F. (1399). Security of the city and urban spaces in the direction of sustainable development of the city. International Conference on Civil Engineering, Architecture, Development and Reconstruction of Urban Infrastructure in Iran, Tehran.
30. Nan,L; Spencer,M; Sun,Q; Lou,V. (2020). "Family Social Capital and Life Satisfaction among Older Adults Living Alone in Urban China: the Moderating Role of Functional Health". Aging & Mental Health. DOI:10.1080/13607863.2019.1709155.
31. Nan,L; Spencer,M; Sun,Q; Lou,V. (2020). "Family Social Capital and Life Satisfaction among Older Adults Living Alone in Urban China: the Moderating Role of Functional Health". Aging & Mental Health. DOI:10.1080/13607863.2019.1709155.
32. Ndegwa (2019). "Development of social capital through social groups and its relationship with sustainable urban development"
33. Ndegwa (2019). "Development of social capital through social groups and its relationship with sustainable urban development".
34. Omidian, G; Najafi Hadak, M.; Negahban Karati, H. (1399). The Relationship between Social Capital and Organizational Entrepreneurship in Mashhad Municipality. The 7th National Conference on Modern Studies and Research in the Field of Humanities, Management and Entrepreneurship of Iran, Tehran
35. Omidian, G; Najafi Hadak, M.; Negahban Karati, H. (1399). The Relationship between Social Capital and Organizational Entrepreneurship in Mashhad Municipality. The 7th National Conference on Modern Studies and Research in the Field of Humanities, Management and Entrepreneurship of Iran, Tehran.
36. Pawlewicz and Pawlewicz. (2020). "Interregional diversity of social capital and sustainable development; A case study of the Polish Voivodeship region". Sustainability. DOI: 10.3390/su12145583.

37. Pawlewicz and Pawlewicz. (2020). "Interregional diversity of social capital and sustainable development; A case study of the Polish Voivodeship region". Sustainability. DOI:10.3390/su12145583.
38. Poursoltani Zarandi, H.; Yousefi, AS. (1396). Relationship between social capital and psychological capital and organizational commitment of employees of the General Department of Sports and Youth of Kermanshah province. The First International Conference on New Research in Sports Science and Physical Education, Hamedan.
39. Poursoltani Zarandi, H.; Yousefi, AS. (1396). Relationship between social capital and psychological capital and organizational commitment of employees of the General Department of Sports and Youth of Kermanshah province. The First International Conference on New Research in Sports Science and Physical Education, Hamedan.
40. Rajabi Farjad, H; Madan kar, R (1398). The effect of social capital on organizational entrepreneurship with the mediating role of organizational capacity (Case study: Quality and Standard Inspection Company).
41. Rajabi Farjad, H; Madan kar, R. (1398). The effect of social capital on organizational entrepreneurship with the mediating role of organizational capacity (Case study: Quality and Standard Inspection Company).
42. Rezaei Mehr, M; Rastegar, a; Bayat, N (1396). The role of social capital in the sustainable management of urban neighborhoods with a neighborhood-based planning approach. Social Research, 9 (36), 90-120.
43. Rezaei Mehr, M; Rastegar, a; Bayat, N. (1396). The role of social capital in the sustainable management of urban neighborhoods with a neighborhood-based planning approach. Social Research, 9 (36), 90-120.
44. Salavarzizadeh, M; Sheikhi, H; Shekari, Z. (1397). Analysis and evaluation of the role of social capital in sustainable neighborhood development (Case study: Ilam city). Journal of Physical Development Planning, 5 (1), 123-136.
45. Salavarzizadeh, M; Sheikhi, H; Shekari, Z. (1397). Analysis and evaluation of the role of social capital in sustainable neighborhood development (Case study: Ilam city). Journal of Physical Development Planning, 5 (1), 123-136.
46. Sun, J; Xiao, S; Lyu, S; Zhao, R. (2020). "Relationship between Social Capital and Depressive Symptoms among the Elderly in China: the Mediating Role of Life Satisfaction". Risk Management and Healthcare Policy. DOI: 10:2147/rmnp.s247355.
47. Sun, J; Xiao, S; Lyu, S; Zhao, R. (2020). "Relationship between Social Capital and Depressive Symptoms among the Elderly in China: the Mediating Role of Life Satisfaction". Risk Management and Healthcare Policy. DOI: 10:2147/rmnp.s247355.
48. Vadia, S. (2017). Reviewing the effect of Iran-Iraq war on post-revolution program of economic and social development in Iran. International Journal of Social Sciences. 7(4). Pp.51-60.
49. Vadia, S. (2017). Reviewing the effect of Iran-Iraq war on post-revolution program of economic and social development in Iran. International Journal of Social Sciences. 7(4). Pp.51-60.
50. Williams, N; Huggins, R; Thompson, P. (2017). "Social Capital and Entrepreneurship: Does the Relationship Hold in Deprived Neighbourhoods?". DOI: 10.1111/grow.12197.
51. Williams, N; Huggins, R; Thompson, P. (2017). "Social Capital and Entrepreneurship: Does the Relationship Hold in Deprived Neighbourhoods?". DOI: 10.1111/grow.12197.
52. Zarei Moghadam, S; Mohammadi Doust, S.S. (1399). Evaluation of Dimensions of Sustainable Urban Development in Urban Waste Disposal Methods (Case Study: Yasuj city). International Conference on Civil Engineering, Architecture, Development and Reconstruction of Urban Infrastructure in Iran, Tehran.
53. Zarei Moghadam, S; Mohammadi Doust, S.S. (1399). Evaluation of Dimensions of Sustainable Urban Development in Urban Waste Disposal Methods (Case Study: Yasuj city). International Conference on Civil Engineering, Architecture, Development and Reconstruction of Urban Infrastructure in Iran, Tehran.