Shahid Beheshti University

Sustainable Earth Review

Journal homepage: http://sustainearth.sbu.ac.ir

Assessing the situation of Zahedan city in accordance with indicators of the creative city

Ali Rahimi[a*], Abdolbaset Dorzadeh Mehr[b], Roghayeh Mirzaei[c], Malihe Shah Beyki[d]

[a] Department of Urban Planning and Design, Faculty of Art and Architecture, University of Guilan, Guilan, Iran
[b] Department of Human Geography and Spatial Planning, Shahid Beheshti university, Tehran, Iran
[c] Department of Urban Planning and Design, Faculty of Art and Architecture, University of Guilan, Guilan, Iran
[d] Islamic Azad University, Brench Zahedan, Iran

ABSTRACT

Nowadays the world is transitioning from the industrial age to the creative age. The Creative age human, in addition to meeting basic needs, seeks to meet their creative requirements such as the need for imagination, mastery, vitality, innovation and curiosity. In such a creative city, with an emphasis on elites and urban planning specialists, urban planners and other related sciences, cities become attractive places to study, work and preserve urban elites, and by improving the quality of universities and scientific centers, quality of work, life quality, tolerance and lifestyle can move in this direction. In this regard, the present article has evaluated and analyzed the indicators of the creative city in the Zahedan. The research method is descriptive-analytical and its type is applied-developmental. Information was collected in both documentary and survey forms (questionnaire and interview). The statistical population of the study is the population of Zahedan is 672589 people and using Cochran's formula, the sample size is calculated as 324 people and the data were analyzed using factor analysis tests and Pearson correlation coefficient with SPSS statistical software.

ARTICLE INFO

Keywords:
Creative city
Economy
Empowering environment
Entrepreneurship
Zahedan

Article history:
Received: 07 Sep 2022
Accepted: 11 Nov 2022

*corresponding author
E-mail address:
Alirahimi.sbu@gmail.com
(A. Rahimi)

1. Introduction

By proposing the theory of modernization and emphasizing urbanization and industrialization of societies and the emergence of industrial revolution, urban development has faced many issues and challenges, including overpopulation and urban population increase-urban sprawl-unfavorable health conditions in cities-population density in cities-the emergence of severe class differences-the accumulation of poor people and the unemployed and workers in dilapidated urban areas-the emergence of problems in transportation. Thus, infrastructural changes in cities were not just demographic and social changes, but cities were also completely transformed physically-the result of all these factors was disruption of the old order of cities and sharp decline in environmental and health qualities.

Increasing spatial inequality within the city leads to increasing social and economic gaps (Pakzad, 1395; Mousavi, 1393). Given these challenges and profound changes in the social, economic and physical contexts of the urban environment, the movement towards the realization and creation of creative cities, officials, business owners and residents of the creative city as a vital factor and responsive strategy for achieving sustainable urban development is emphasized. Creative city is a hopeful strategy for city dwellers that helps to develop their mental imaginations, develops their talents and finally builds their city fundamentally and provides the ground for urban development (Mokhtari Malekabadi et al., 2014; jopek, 2014). The world today is transitioning from the industrial age to the creative age.

In addition to meeting basic needs, the creative age seeks to meet their creative needs such as need for imagination, mastery, vitality, innovation and curiosity. Creativity is a fundamental principle for being human and a vital resource for the individual and society. Creative and vibrant societies with human spaces nurture personal growth, shine in cultural and technological advances, generate jobs and wealth, and cater to a variety of lifestyles and cultures (cctf, 2008). For Richard Florida, cities are a boiling point of creativity. They have long been a means of mobilizing, concentrating, and directing human energy in a creative way. A creative city has the talent, tolerance, and technology at the same time and at the highest level, as well as the capacity to attract its creative class. Creative elites include people active in the science and engineering fields, urban planning, architecture, geography and design, education, art, music, entertainment and creative citizens whose economic function, new ideas, new technology and innovative content creates the world today (Florida, 2005). In such a creative city, with emphasis on elites and urban planning specialists, urban planners and other related sciences, cities become attractive places for studying, working and preserving urban elites, and by improving the quality of universities and scientific centers, work quality, life quality, tolerance level and lifestyle can move in this direction (Healey, 2004). Accordingly, the creative city is very important and the need to study cities in terms of their creative status to identify the gap between the status quo and their desired is very important. Recognizing this situation and the indicators that have the greatest distance to the desired level and presenting it to policy makers and planners is essential to move in the direction of urban development and improve urban management and thus improve the quality of life of citizens (environment). Therefore, in order to continue and accelerate the great scientific and technological progress that has taken place in our country in recent years, the need to develop the current cities of Iran with an emphasis on creative cities is essential and vital. Zahedan has caused a decline in the quality of urban life due to population increase and urbanization phenomenon, with many issues and problems such as environmental problems, water shortage and agricultural decline, increasing consumption of fossil fuels due to the growth of intra-provincial migration has led to marginalization and informal settlement in the city. Due to these issues, it requires the city to move towards a creative city. Therefore, the purpose of this study is to examine the current situation of Zahedan in terms of having creative city indicators. Therefore, the main question of the research is what is the level of Zahedan city in terms of creative city indicators?

1.1. Research review

Table 1. Research review

	Researchers	Research Title	Conclusions
1	Meshkini et al	Creative city: a new model for a knowledge-based development in the field of urban management (2014)	Creative city theory has been introduced as a new model for the knowledge-based development in the field of urban management and has explained the place of globalization in the cultural and creative economy. Also, the concept and characteristics, attitudes, pillars and principles of Florida's creative class theory and the creative city and the characteristics and indicators of the city and its landscape are described.
2	Mokhtari Malekabadi et al	Explaining the criteria of localization of spatial index and space of creative city with Iranian-Islamic approach (2015)	According to the results of this research, for the realization and prosperity of a creative city, strong cultural contexts are needed to express creativity in the urban space. Thus, cities with strong cultural backgrounds can join the chain of creative global cities and provide the context for globalization.

3	Sarvar et al	Analysing the efficiency of urban neighborhoods in terms of indicators of the creative city (2015), (Case study: Bonab)	The results of this study show that among the thirteen neighborhoods of Bonab city, 12, 3, 1, 6 neighborhoods have the highest efficiency with high performance level and 8,7,3 neighborhoods with the lowest efficiency with poor performance level are creative in terms of city indicators.
4	Nazmfar et al	Assessing the availability of urban settlements in Ardabil province from the creative city indicators (1396).	The results of studies show that the rate of urban settlements in Ardabil province is different in terms of creative city indicators and there is a big gap between urban settlements in Ardabil province. Ardabil, Sarein and Meshkinshahr have the best situation in terms of creative city indicators based on TOPSIS model, and the lowest level of enjoyment is related to Ardabil, Meshkinshahr and Parsabad urban settlements and the lowest level of enjoyment in terms of these indicators is related to the urban settlements of Kowsar and Nir.
5	Alan J. Scott	Creative Cities Conceptual Issues and Strategic Questions (2006)	It presents a broad and controversial idea about the nature and importance of the creative city, and seeks to replace the concept of the creative city amid recent changes in technology, production structures, labor markets, and dynamic spatial communities. It also seeks to show how new economic structures highlight specific types of economic and cultural innovation in creative cities.
6	McGrahan and Vojan	Creative class redesign to examine growth trends in urban and rural areas with emphasis and inspiration from the work of Florida (2007)	According to the results of this study, the creative class is drawn to areas that have a high level of quality of life. It is more compatible with regional development.
7	Costa et al	Discussion of Creative City Governance Perspectives for Practical Action (2007)	The authors believe that the implementation of projects related to creative cities around the world has become urban governance. In this study, the movement from contemporary debates about the creative city to focus on the diversity of mechanisms and forms of regulatory governance has been considered.
8	Charles Landry	Evaluating Creative City Indicators in North Palmerston, New Zealand (2013)	Ten indicators have been used in this study. After statistical analysis of the collected data, the index of livability and the level of urban comfort and welfare is in the first place, the index of communications and urban communication networks is in the second place and the index of freedom, tolerance is in the third place.

1.2. Literature Review

For the first time, "Debor" discussed a topic about cities and creative areas under the title "Spectacular city or exhibition city" in 1967 (Akbari Motlagh, 1392). The creative city theory was developed in 1980s to find an answer to the growing urbanization and its

problems, and it began to be conceptualized extensively in 2000 (Landry, 2005; Florida). This theory was first proposed scientifically in 2002 by Richard Florida. Creative city as a promising strategy for city dwellers that helps them cultivate their imagination, develop their talents, and ultimately build their city fundamentally and pave the way for urban development (Jopek, 2014). Creative city theory tries to describe qualities that make the mental image of the city more beautiful for citizens and its memory more lasting. In this theory, creativity is measured as a part of public intelligence and as a result, increasing the ability to innovate and produce knowledge in this way is one of the indicators of measuring social progress (Akbari Motlagh, 1392). The growth and prosperity of the creative city are the three main effective factors that are: rational investment, creative investment and social investment. These three factors, which make a significant difference in the world of knowledge-based employees, are the subject of discussion by many experts in the field of creative urban planning. In many texts related to the creative city, understanding the sustainability and dynamics of the flow of knowledge application has been emphasized. The concept of creative city is linked to many other concepts. These include the creative industries, cultural industries, cultural activities, urban arts activities, and the knowledge economy (Costa et al., 2007). There is the ability to connect people and spaces, a connection that is related to urban identity and understanding from past to future construction is important. In his view, the creative city is considered as an attractive point for the creative class; In other words, cities must create exciting environments for all people; In this process, culture is a valuable asset in the creative city; And physically, it provides criteria from the point of view of people like Vergan who believe that a creative city should be clean, green and safe (Reis, 2009). Richard considers Florida to be a creative city with three indicators: "talent," "technology," and "tolerance," although Florida's theory of the "creative class" has been widely criticized economically, politically, and socially. Is. It is still in the focus of experts in this field. From an economic point of view, the causal relationship between the indicators proposed by Florida and the economic development of the city has not been proven. But another important point is that the cultural and creative capacity of any city is always much greater than we initially thought. This means understanding that ordinary citizens, if they have enough opportunities, can They can do great things, a creative city, a place for creativity to grow, a place for artistic creativity, scientific and technological innovations, the voice of growing cultures, a city with the ability to realize all its creative potential, a leader in Cultural, artistic and urban activities are dynamic in terms of cultural learning; Therefore, the required dimensions of the vital elements of the creative city in the public space can be enumerated, including urban identity, exciting environment, environment prone to activity, technology in various fields, places of community and cooperation, clean space, green space and others. The creative city is a city that represents the form and concept of the city of the future. It brings a growing group life, affecting the economic scale associated with resources, information, exchange of ideas, capital concentration, proximity to jobs and job opportunities. The Creative City recognizes and implements these qualities and encourages individuals and companies that care about issues such as cultural values, the community of justice, innovation, gender and race, and religious equality. Democratic principles and cultural inclusiveness are common features of the conscious and deliberate public of the creative city (Reis et al., 2009).

People, businesses, spaces, connections and perspectives are the five main pillars of creative cities, and paying attention to these pillars is vital for the creation and development of creative cities in the future.

People: In the creative city, conditions and activities should be considered that lead to the emergence of future artists, success of creative employees in all sectors of the economy, make consumers want cultural goods and create an attractive environment for creative people. Strong public education and access to cultural activities play a vital role in shaping creative individuals and promoting social commitment and participation.

Businesses: Creativity often leads to social opportunities, and cultural entrepreneurs start and grow creative businesses. The commercialization of innovative and creative ideas creates jobs and wealth in creative cities. In creative cities, the abundance of creative

talents is the main driver of the creative industries and the economy of the region.

Space: There is a strong connection between space and creativity. Creative people need space to live, work, inspire and display their work. The spaces of a city, both natural and artificial, evoke, adapt and express the creativity of their residents.

Links and Communications: An urban environment that seeks to inspire and support creativity must also be able to combine many separate actions. These links are often led and developed by organizations whose mission and vision is creativity. These links are also supported by intermediary organizations that organize separate activities and make effective use of available resources.

Landscapes and reputation: In creative cities, expressing a strong and creative vision will lead to the growth of talents and will guide and regulate the support of creativity widely in the city. This perspective tells the story of the city around the world, creates its reputation in the world and leads to the promotion of tourism, exports and investment in the city (Mohammadi, 1389). A wide range of creative options for production and The work presented by the new post-Fordist economy reveals a new world order in the metropolitan areas. The main feature in creative areas is the combination of different dimensions of economics and culture in a kind of human logical order (Mommas, 2004).

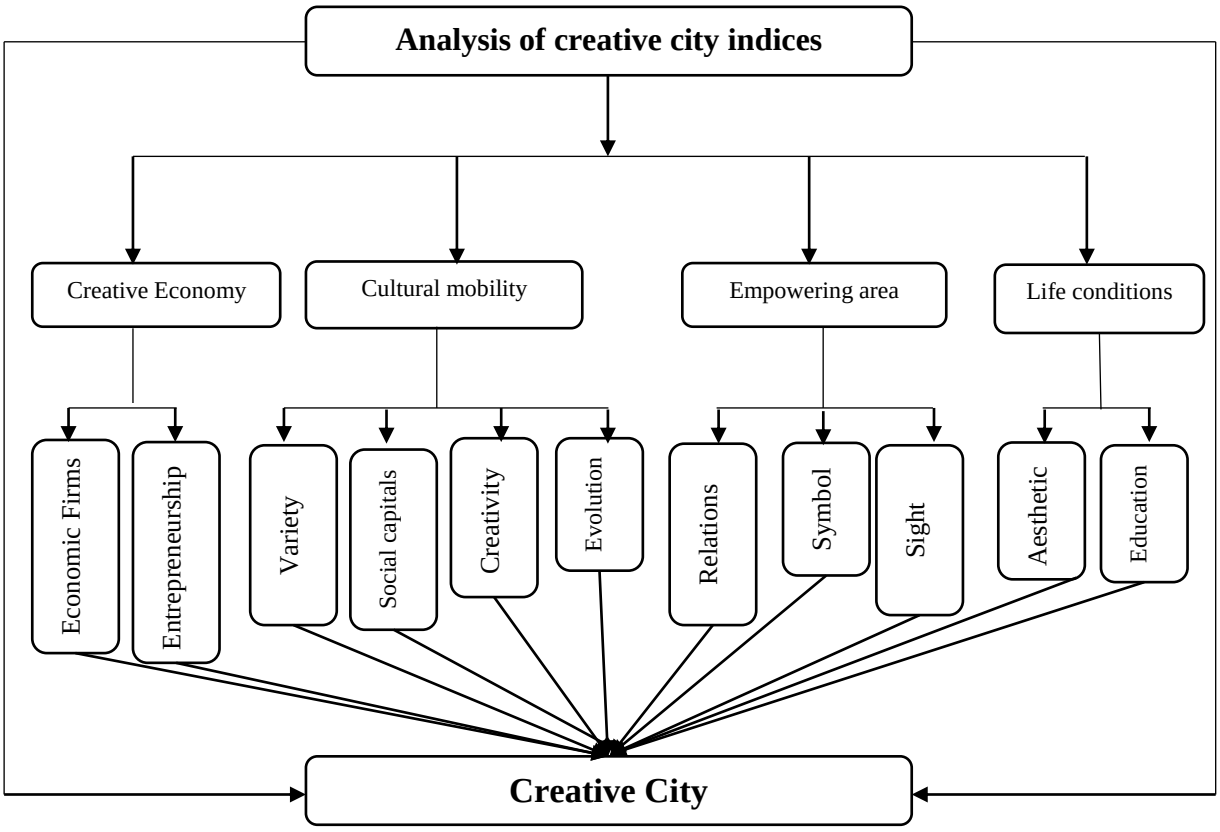

Fig 1. Conceptual model of research
Drawing: Authors 1399

1.3. Study Area

Zahedan, capital of Zahedan and Sistan Baluchestan province in eastern Iran is located near the Iranian border with Afghanistan and Pakistan. The height of Zahedan city from the sea level is 1378 meters. This city is one of the most important administrative, political, commercial and military centers in southeastern Iran and has a history of about one hundred years (Ebrahimzadeh and Kazemizad, 2013). This city had a population of 672,589 in 2016 (Statistics Center of Iran, 2016). Figure 2 shows the location of Zahedan city.

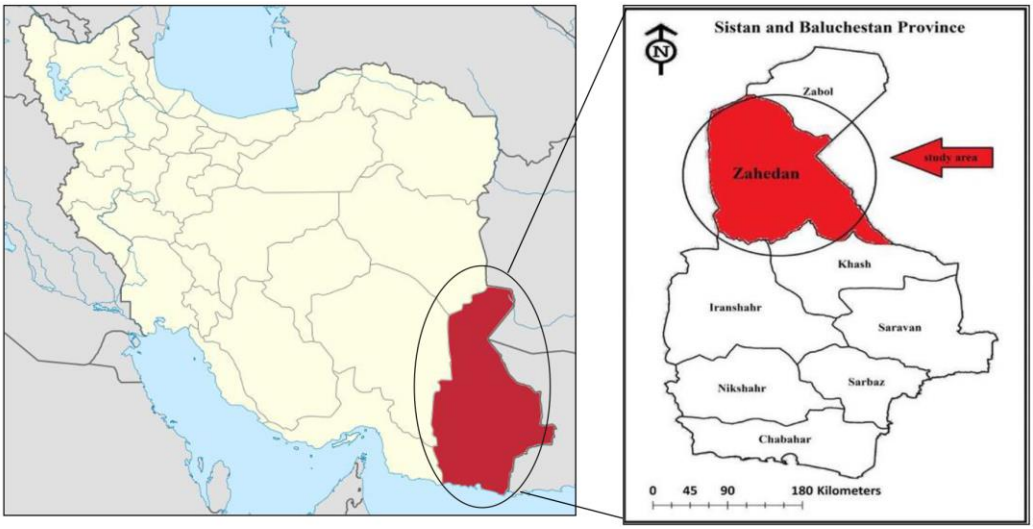

Fig. 2. Geographical location of the study area

2. Material and Methods

The present study is applied in terms of one-time period and based on the use of descriptive-analytical method and in order to collect the required information, documentary and field studies have been used. The statistical population of the present study is the entire population living in Zahedan Based on the general census of 2016, it has a population of 672,589 (Statistics Center of Iran, 2016). There is equality for all people. The instrument of the present study was a questionnaire in the form of Likert scale 1-very low, 2-low, 3-medium, 4-high, 5-very high. In order to determine the validity of the questionnaire, the views of experts were used and its validity was confirmed. In order to assess the reliability of the questionnaire, Cronbach's alpha coefficient was calculated, which was equal to 0.7 and above and was very appropriate. According to the experimental rule, the alpha must be at least 0.7 in order to be considered reliable in the scale, regarding the determination of the sample size, it should be said that normally in descriptive field research and survey, it is necessary that the sample size is at least one hundred tons (1998, quoted by Ranjbarian, 71: 2007). Formal validity (validity) of the research tool, based on the opinions of experts (15 professors of relevant PhD students) and reliability of the questionnaire using Cronbach's alpha coefficient for each of the indicators of the creative city, taking into account the sum of their items are shown in Table 2.

Table 2. Cronbach's alpha coefficient in order to determine the reliability of the research tool

Index	**Creative economy**		**Empowering area**			**Cultural mobility**			**Life conditions**	
Cronbach's alpha	0.828		0.879			0.709			0.819	
Index	Economic affair	Entrepreneurship	Relations	Symbol	Sight	variety	Social capitals	creativity	Evolution	aesthetics	education
Cronbach's alpha	0.721	0.811	0.722	0.958	0.682	0.658	0.745	0.687	0.87	0.987	0.789

According to the present descriptive findings, out of a total of 324 people, 180 are men and (55.72%) and 143 equivalents (44.27%) are women, which in terms of age has the lowest frequency equal to 35 people (11.6%) in the age group of 20-30 years and most of them equal to 112 people (37.5%) are in the age group over 45 years. In terms of education status, the highest frequency (150) was related to those with a bachelor's degree and the lowest was related to the doctoral category. Also, the job status of the respondents was various, but the employee class was dominant.

Table 3. Frequency and percentage of education and job of the respondents

Feature		Frequency	Percentage
gender	Female	143	44.27
	male	180	55.27
education	Master's Degree	97	30.3
	Bachelor's degree	150	46.43
	Associate degree	60	18.57
	Diploma	16	4.95
Job	Officer	160	49.53
	Service occupations	80	24.76
	Others	83	25.69

Source: Authors' calculations, 1399.

3. Results and discussion

One of the methods for selecting appropriate variables for factor analysis is the use of correlation matrix, which is the basis of factor analysis for selecting variables based on different factors using correlation between variables but based on non-causal distribution. Of course, there are other statistics through which the researcher is able to determine and determine the suitability of the data for factor analysis (Fazelnia et al., 2013). One of these methods is the sample adequacy value or KMO index, the value of which is always between 0 and 1. To perform a satisfactory factor analysis, the KMO value must be greater than 0.6 (Ebrahimzadeh and Rousta, 2016). Also to ensure the data for factor analysis that the correlation matrix that is the basis of the analysis The factor is placed, whether it is equal to zero in society or not, the Bartlett test is used. As we can see in Table (4), considering that the test results are more than 0.6 and the significance level (0.000) with a probability of more than 99% confirms the correlation between the variables.

3.1. Extraction of agents

To create a logical and appropriate relationship between indicators and factors, indicators' correlation coefficient is above 5% (Taqvaee and Shafiei, 2009). Accordingly, in this article, the total variance of the 11 factors mentioned is 73.600%, the highest of which was 10.118% in the first factor. 73.600% variance indicates the satisfaction of the results of factor analysis. The results (Table 5) show that in this analysis, the first factor alone is 10.118, the second factor is 5.150, the third factor is 2.535, the fourth factor is 2.291, the fifth factor is 1.88, the factor The sixth factor is 1.769, the seventh factor is 1.468, the eighth factor is 2.323, the ninth factor is 1.120 and the tenth factor is 1.041.

Table 4. KMO and Bartlett's tests

Kaiser-Mir-Ulkin Sample Adequacy Test (KMO)		**0.757**
Bartlett spherical test	Chi-square approximation	9378.865
	Degrees of freedom	741
	Significance level	0.000

Source: Authors' calculations, 1399.

Table 5. Extraction of final factors of data analysis

	Special values			Special values without rotation			Special values with rotation		
	General	Percentage of variance	Cumulative percentage	General	Percentage of variance	Cumulative percentage	General	Percentage of variance	**Cumulative percentage**
1	10.118	25.944	25.944	10.118	25.944	25.944	5.832	15.057	**15.057**
2	5.150	13.204	39.148	5.150	13.204	39.148	4.014	10.293	**25.350**
3	2.535	6.501	45.649	2.535	6.501	45.649	3.900	10.000	**35.350**
4	2.291	5.875	51.524	2.291	5.875	51.524	2.844	7.292	**42.642**
5	1.888	4.841	56.365	1.888	4.841	56.365	2.568	6.584	**49.225**
6	1.769	4.537	60.902	1.769	4.537	60.902	2.457	6.299	**55.525**
7	1.468	3.764	64.666	1.468	3.764	64.666	2.380	6.103	**61.628**
8	1.323	3.393	68.059	1.323	3.393	68.059	2.130	5.463	**67.090**
9	1.120	2.872	70.931	1.120	2.872	70.931	1.277	3.274	**70.364**
10	1.125	4.841	39.141	24.256	3.845	52.649	3.568	41.256	**37.350**
11	1.041	2.669	73.600	1.041	2.669	73.600	1.262	3.236	**73.600**

Source: Authors' calculations based on the questionnaire findings, 1399.

3.2. Firms

Based on the data (Table 5), the eigenvalue of the first factor is 10.188, which alone can calculate and explain 25.944% of the variance. 10 items are known for the first factor. Most of the variables in the first factor have a weak factor load. Only a few variables are in a better position than the other variables, so the operating status of enterprises in the city of Zahedan is weak. The highest factor load is related to the variable "Existence of a suitable number of diverse small and medium businesses" with a factor load of 0.853 and the lowest factor load is related to the variable "Capacity building to expand the information and communication community in the city" with a factor load of 0.371. Be. (Table 6), the creative city has played a role in creating job opportunities, production and income, and national and international economic stimulation. By creating new economic opportunities, it gives new life to the activities of local communities and can be very important in the development of entrepreneurial activities.

Table 6. First factor variables

	Variable	Loading factor
1	Existence of various shops in the main and secondary squares and city streets	0.548
2	There are a good number of diverse small and medium-sized businesses	0.853
3	Benefit of the city from various industries and factories, in accordance with the region capabilities	0.657
4	Number of private sector companies in the city	0.589
5	Number of public sector companies in the city	0.503
6	Employees in the industrial sector in the city (workshops and factories around the city if any)	0.663
7	Existence and development of an appropriate number of knowledge-based businesses (based on innovation and new knowledge)	0.746
8	Support of organizations and institutions for people's inventions and innovations	0.619
9	Proportion of formal education (schools and universities) to entrepreneurship and development of people's job creativity	0.471
10	Capacity building to expand the information and communication community in the city	0.371

Source: Authors' calculations based on the questionnaire findings, 1399.

Table 7. Second factor variables

Column	Variable	Loading factor
1	Extent of partnership with entrepreneurial companies	0.695
2	Creating an entrepreneurial culture by institutions	0.678
3	Provide time to work on side projects	0.466
4	The amount of ongoing costs for training	0.871
5	Support local associations to develop skills	0.371

Source: Authors' calculations based on the questionnaire findings, 1399.

Third factor: Diversity: The specific value of this factor is 2.535, which calculates and interprets 45.649% of the variance. The variables that were loaded in this factor are mostly related to the component of diversity, so we name this factor diversity. The variables that are included in the third factor are 7 variables, of which three are weak variables and the other four are better than other factors in Zahedan. The highest factor load is the variable "not taking much time and no unemployment time" with a factor load of 0.797 and the lowest factor load is related to the variable "soft infrastructure such as creative spaces and cafes" with a factor load of 0.415 (Table 8).

Table 8. Third factor variables

	Variable	Loading factor
1	Product prices should reflect their true value	0.667
2	Lack of time and lack of unemployment	0.797
3	Proper placement of creative resources, creating harmony and attention to details	0.729
4	Being easy, clear and understandable	0.605
5	Activities lead to re-humanization of relationships and create a sense of empathy, trust and intimacy with local people	0.551
6	Soft infrastructure such as creative spaces and cafes	0.415
7	Existence of necessary hardware such as smartphones to run IT-based applications	0.462

Source: Authors' calculations based on the questionnaire findings, 1399.

Fourth factor: social capital: The specific value of this factor is 2.291 and shows that this factor explains 51.424 percent of the total variance of the variables under study. The variables included in the fourth factor are 3 weak variables. The highest factor load is allocated to the variable "Voluntary work and assistance in the community" with a factor load of 0.808 and the lowest factor load is allocated to the variable "Existence of class in the city" with a factor load of 0.410 (Table 9).

Table 9. Fourth factor variables

	Variable	Loading factor
1	Organizational life in a creative social group or organization	0.554
2	Voluntary work and assistance in the community	0.808
3	The level of class in the city	0.410

Source: Authors' calculations based on the questionnaire findings, 2020.

Fifth factor: creativity: The specific value of this factor is 1.888, which has calculated and interpreted 56.365% of the total variance. The variables included in the fifth factor are 5 variables, of which three factors are weak and the other two factors are better than other factors in the city of Zahedan. The highest and lowest factor are the variables of "diversity of public spaces and meeting centers" For the exchange of information and opinions "with a factor load of 0.750 (Table 10). Development of soft infrastructures such as creative spaces, cafes, symbolic places, etc.

Table 10. Fifth factor variables

	Variable	Loading factor
1	Activities of experts in organizing urban spaces and administrative and organizational management	0.415
2	Variety of public spaces and gathering centers for exchanging information and opinions	0.750
3	Efficiency of service and welfare activities during the evening and night	0.467
4	Observe the time and place intervals between attractive uses	0.598
5	Organizations support creative people in the field of inventions	0.458

Source: Authors' calculations based on the questionnaire findings, 2020.

Sixth factor: education: The specific value of this factor is 1.769, which explains and interprets 602.902% of the variance. The variables that were loaded in this factor are mostly related to the training component. The variables that are included in the sixth factor are two variables that these two factors have a better situation in Zahedan than other factors.

The highest factor load is assigned to the variable "Satisfaction with service and expansion of higher education centers" with a factor load of 0.789 and the lowest factor load is allocated to the variable "University education appropriate to entrepreneurship and development of job creativity in the city" with a factor load of 0.732. (Table 11).

Table 11. Sixth factor variables

	Variables	Loading factor
1	University education in line with entrepreneurship and the development of job creativity in the city	0.732
2	Your satisfaction with the service and development of higher education centers in schools	0.789

Source: Authors' calculations based on the questionnaire findings, 2020.

Seventh factor :transformation: The specific value of this factor is 1.468, which alone calculates and interprets 64.666% of the variance. The variables that were loaded in this factor are mostly related to the transformation component, so we name this factor evolution. The variables included in the seventh factor are 2 variables, both of which were weak variables. New »with a factor load of 0.421 (Table 12).

Table 12. Seventh factor variables

	Variable	Loading factor
1	Transmitting the vision of transformation to others	0.497
2	Institutionalizing new perspectives	0.421

Source: Authors' calculations based on the questionnaire findings, 2020.

Eighth factor: links and communications: The specific value of this factor is 1.323, which alone can calculate 68.059% of the variance. The variables that are loaded in this factor are mostly related to the components of links and connections, so we call this factor links and connections. The variables included in the eighth factor are 4 variables. Of these 4 factors, two are weak variables and the other two are better than other factors in Zahedan. The highest factor load is assigned to the variable "density and congestion of sidewalks" with a factor load of 0.637 and the lowest factor load is assigned to the variable "proper access to public transportation in the city" with a factor load of 0.489 (Table 15). One of the most important reasons for governments and planners to pay attention to infrastructure is its economic consequences for the region. So that today infrastructure is an important factor for economic development (Matiei Langroudi and Rezaieh Azadi, 1392). The development of infrastructure in the city of Zahedan can increase income and improve the economic situation of the city's residents.

Table 13. eighth factor variables

	Variable	Loading factor
1	Airport, and other communication facilities in the city	0.569
2	Efficiency of traffic and public transport system in the city	0.628
3	Convenient access to public transportation in the city	0.637
4	Crowded sidewalks	0.637

Source: Authors' calculations based on the questionnaire findings, 2020.

Ninth factor: symbol: The specific value of this factor is 1.468, which alone calculates and interprets 64.666% of the variance. The variables that were loaded in this factor are mostly related to the symbol component, so we name this factor a symbol. The variables included in the ninth factor are 4 variables. Of these four variables, two variables are weak and the other two variables are relatively better. The highest factor load to the variable "Targeting individuals and small groups as a target market by attracting observers of hotspots of creativity and physicalization of virtual networks" with a factor load of 0.817 and the lowest factor load is assigned to the variable "High degree of hygiene, no noise pollution, safety and comfort" with a factor load of 0.421 (Table 14).

Table 14. Ninth factor variables

	Variable	Loading factor
1	High degree of hygiene, no noise pollution, safety and comfort	0.421
2	Having a unique souvenir and creating a unique brand	0.523
3	The possibility of forming a specific story and creating a lasting memory	0.608
4	Target individuals and small groups as target markets by attracting creative hotspots and virtualizing virtual networks	0.817

Source: Authors' calculations based on the questionnaire findings, 2020.

Tenth factor: aesthetics: The specific value of this factor is 1.041, which explains and interprets 73.600% of the variance. The variables loaded on this factor are mostly related to the aesthetic component, so we call this factor aesthetics. In this factor, 2 variables are loaded, of which one factor is weak and another factor is better in Zahedan. The most and the least factor to the variables "activities lead to humanization of relationships and create a sense of empathy, trust and intimacy with local people" and "activities lead to humanization of relationships and create a sense of empathy, trust and intimacy with "Be local people" with a factor load of 0.621 and 0.455, respectively (Table 15). The need for beauty is one of the most unknown needs, Maslow believes that this need exists in some people. Such people get sick when they see ugliness and recover by being in a beautiful environment. This condition is almost common in healthy children. In defining this need, three issues of value, pleasure and surprise are important. The point that should be considered in the field of aesthetics is diversity (Motavi, 1389). The uniformity of the environment of Zahedan attractions, on the other hand, their lack of diversity has caused people not to enjoy the environment enough.

Table 15. tenth factor variables

	Variables	Loading factor
1	Activities should be considered as a kind of identity card of this region that can be experienced only here	0.455
2	Activities lead to the re-humanization of relationships and create a sense of empathy, trust and intimacy with local people	0.621

Source: Authors' calculations based on the questionnaire findings, 2020.

Eleventh factor of perspective: The specific value of this factor is 1.041, which explains and interprets 73.600% of the variance. The variables loaded in this factor are mostly related to the landscape component, so we name this factor landscape. In this factor, 4 variables are loaded, of which 2 factors are weak and 2 other factors are better in Zahedan. The highest and lowest factor loads are allocated to the variables "use of guiding signs and symbols for better access to destinations" and "variety of construction plans" with a factor load of 0.621 and 0.352, respectively (Table 16).

Table 16. Eleventh factor variables

	Variables	Loading factor
1	Observing the time and place intervals between attractive uses	0.455
2	Use of guiding signs and symbols for better access to destinations	0.621
3	Land use compatibility	0.452
4	Variety of building designs	0.352

Source: Authors' calculations based on the questionnaire findings, 2020.

In (Table 17), the results of Pearson correlation test, according to the level of significance (Sig), which is less than 0.05 and this relationship is statistically significant; It shows that there is a high correlation between creative city and indicators (creative economy, cultural mobility, living conditions and enabling environment), which indicates a strong positive

linear relationship between them. Maximum correlation; Between the creative city and the creative economy variable with a correlation coefficient of 0.917. That is, with the increase of internal business processes, the city of Zahedan will be upgraded to a creative city.

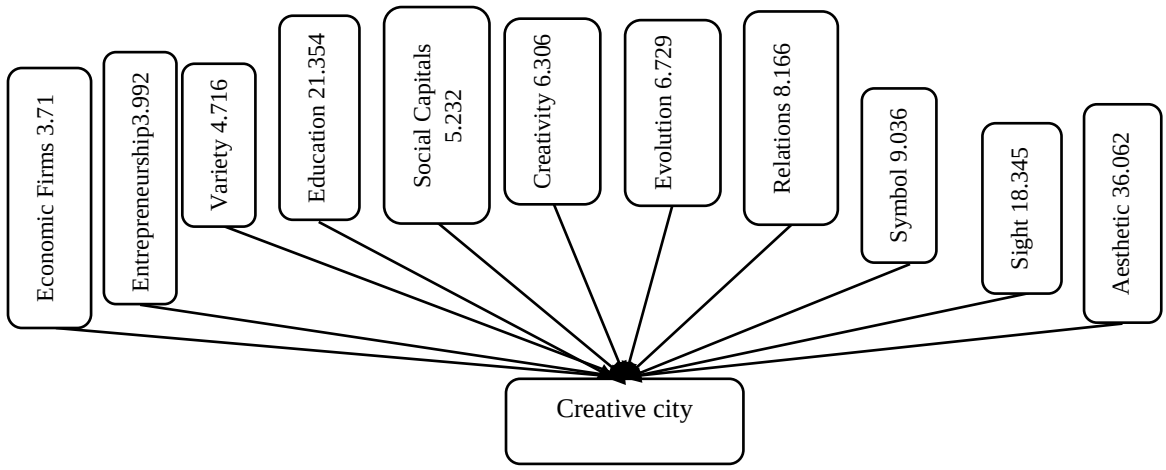

Fig. 3. Analytical model of the factors effects on the situation of the creative city of Zahedan with the percentage share of each factor
Prepared and drawn by: Authors 1399

Table 17. Results of Pearson correlation test to determine the relationship between indicators and creative tourism

Significance level (Sig)	The dependent variable	N	Correlation coefficient	Independent variables Significant level dependent variable (Sig)
0.000	Creative City	324	0.917	**Creative Economics**
			0.849	**Cultural mobility**
			0.816	**life conditions**
			0.827	**Enabling environment**

Source: Analysed by Authors (2020)

4. Conclusion

In order to study the indicators of the creative city in Zahedan, 4 indicators with 39 variables were examined and analyzed using factor analysis. These 39 variables were divided into 11 factors by taking the factor analysis test, and considering that the results of the Bartlett sphericity test are more than 0.6 and the significance level (0.000) with a probability of more than 99% correlation between the variables Confirms. The results show that the total variance of the 11 factors is 73.600 percent, the highest of which was 10.118 percent in the first factor. 73.600% variance indicates the satisfaction of the results of factor analysis. Out of 39 variables, 10 variables were in the first factor. Most of the variables in the first factor have a weak factor load, only a few factors are better than other factors, so the situation of this factor is weak in the city of Zahedan and the highest factor load to the variable "the existence of a good number of diverse businesses" "Small and medium" with a factor load of 0.853 and the lowest factor load is related to the variable "Capacity building to expand the information and communication community in the city" with a factor load of 0.371. The value of 8 variables in the second factor Most of the variables in this factor had a weak factor load, which indicates that entrepreneurship in Zahedan is weak and the highest factor load to the variable of creating a "continuous cost of education" with a factor load. 0.871 and the lowest factor load is related to the variable "Support of local associations to develop skills" with a factor load of 0.371. The value of 2 variables in the sixth factor that these two variables have a better situation in Zahedan than other factors and the highest factor load to the variable "Your satisfaction with the service and expansion of higher education centers" with a factor load of 0.789 and the lowest factor load It is assigned to the variable "University education appropriate to entrepreneurship and development of job creativity in the city" with a factor load of 0.732. The seventh factor has 2

variables, both of which have been weak, and the highest factor load is the variable "Transferring the perspective of change to others" with a factor load of 0.497 and the lowest factor load is the variable "Institutionalizing new perspectives" with a factor load. 421/0 is allocated. The variables included in the eighth factor are 4 variables. Of these 4 variables, two are weak variables and the other two factors are in a better situation in Zahedan than other factors. The most common factor is the variable "Density and congestion of sidewalks" with load. The factor is 0.637 and the lowest factor load is assigned to the variable "proper access to public transportation in the city" with a factor load of 0.522. The ninth factor in this factor is loaded 4 variables. Of these 4 variables, 1 is weak and the other 3 variables are in a better situation in Zahedan than other variables. The goal is to attract creative observers to the hotspots of creativity and physicalization of virtual networks "and" high degree of hygiene, no noise pollution, security and comfort "with a factor load of 0.817 and 0.421, respectively. In the tenth factor, 2 variables have been loaded. Of these two variables, one is a weak variable and the other one has a better situation in Zahedan than the other. "Empathy, trust and intimacy with local people" and "Activities should be considered as a kind of identity of this region that can be experienced only here" with a factor load of 0.621 and 0.455, respectively. In the eleventh factor, 4 variables have been loaded. Of these 4 variables, 3 are weak variables and another variable has a better situation in Zahedan than the other, and the highest and lowest factor loads into the variables " To destinations "and" variety of construction plans "with a factor load of 0.621 and 0.352, respectively. Also, the results of Pearson correlation test shows that there is a high correlation between creative city and indicators (creative economy, cultural mobility, living conditions and enabling environment), which indicates a strong positive linear relationship between them. Maximum correlation; The correlation coefficient between the creative city and the creative economy variable is 0.917. The findings of this study are in line with the results of previous researches such as Mohammadi et al. (2016), Rahimi et al. (2016) and Sepehrnia et al. (2015), etc. and confirm it. Research solutions to provide appropriate solutions.

Supporting local and indigenous small workshops in Zahedan
Attracting and encouraging creative people
Attracting and retaining the creative class
Creating art workshops to provide the ground for citizens' creativity
Holding exhibitions of local industries and products and local competitions and games
Holding a festival of local dialects, local and indigenous clothes as well as local food at the national and international level to introduce the diversity of culture in the city of Zahedan
Encouraging the private sector to invest in recreating historical environments
Creating the necessary infrastructure to join the network of creative cities

References

A creative city task force, (cctf)., 2008. A crettive city task force Report London (CANADA).

Akbari Motlagh, M., 2013. A Study of the Dimensions of Creative City Theory and Its Impact on Sustainable Urban Development with Emphasis on Global Trade, *Buchan National Conference on Sustainable Architecture and Urban Development*, May 16, 2013.

Banks, M., 2013. Creative Cities, Counter – Finance and the Aesthetics of Exchange: Copenhage's Artmoney Project, *Journal of Cities*, 33, 36-42.

Costa, P., Magalhães, M., Vasconcelos, B. & Sugahara, G., 2007. A discussion on the governance of 'Creative Cities': Some insights for policy action. *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, 61(3), 122-132.

Florida, R., 2005. Cities and creative class, Routladge,UAS.Growth proesses

Haji Pourshoshtari, A.H. and Aslani, R., 2016. The Role of Marketing and Advertising in the Development of National and International Tourism in the Persian Gulf Using the Destination Management System (DMS), *Journal of Persian Gulf Cultural and Political Studies*, 3(7), 59-76.

Healey, P., 2004. Creativity and urban governance. *disP-The Planning Review*, 40(158), 11-20.

Kazemizad, S., 2013. Measuring the level of satisfaction and willingness of citizens to participate in the implementation of municipal infrastructure projects (Case study: Zahedan Municipality), *Quarterly Journal of Geography and Development*, Year 11, 30, 22.

Landry, C., 2013. *Creative City index Comfortable or Captivating, An assessment of Palmerston North*, Print synergy & Published by Palmerston North Ciry Council, June 2013.

Mansourfar, K., 2003. *Statistical Methods* (Sixth Edition), Tehran, University of Tehran Press.

McGranahan, D. & Wojan, T., 2007. Recasting the creative class to examine growth processes in rural and urban counties. *Regional studies*, 41(2), 197-216.

Meshkini, A., Hatami Nejad, H., Mahdnejad, H. & Parhiz, F., 2014. *Creative City, a New Model for the Development of Knowledge-Based in the Field of Urban Management*, Aradktab Publishing, Tehran.

Mohammadi, A., Moharr, M. & Babakhanifard, M.S., 2016. Providing a framework for evaluating creative tourism products using a balanced scorecard, *Quarterly Journal of Tourism and Development*, 5(6), 24-42

Mokhtari Malekabadi, R., Ali Akbari, E., Marsousi, N. & Amini, D., 2015. Explaining the criteria of localization of spatial index and creative city space with Iranian-Islamic approach, *Quarterly Journal of Iranian and Islamic Cities Studies*, 22, Winter 2015, 36.

Mommaas, H., 2004. Cultural clusters and the post-industrial city: Towards the remapping of urban cultural policy. *Urban studies*, 41(3), 507-532.

Motevali, M., 2010. Assessing and measuring the quality of beauty in the urban landscape based on the concept of consecutive views of a case study of Darabad-Tehran tourist route, *Armanshahr Quarterly*, 5, 123-139.

Motiee Langroudi, S.H. & Rezaieh Azadi, M., 2013. Assessing the economic effects of tourism from the perspective of the host community in the Urmia Dam, *Quarterly Journal of Space Economics and Rural Development*, Second Year, 2, 75-91.

Mousavi, M.N., 2014. Ranking of Sardasht neighborhoods in terms of moving towards creativity ANP with emphasis on creative city research using TOPSIS (Case study: Sardasht city), *Journal of Geography and Urban-Regional Planning*, 10, Spring 1393.

Nazmfar, H., Alavi, S. & Eshghi Chahar Borj, A., 1396. Assessing the availability of urban settlements in Ardabil province from the indicators of the creative city *Quarterly Journal of Geography and Environmental Planning*, Year 28, Consecutive, 2, Summer 2017.

Pakzad, J. & Jalali, A., 2015. The course of ideas in urban planning: from "quantity" to "quality; Armanshahr Publications, 72.

Rahimi, M., Mard Ali, M., Daha, E. & Fallahzadeh, A.R., 2016. *Creative city (theoretical foundations and characteristics)*, Daneshshahr, 196, 9-36.

Reis, A.C.F. & Kageyama, P., 2009. *Creative city perspectives*. Garimpo de Soluções & Creative City Productions.

Sarvar, R., Akbari, M., Amani, M. & Taleshi Anbouhi, M., 1394. Analysis of the efficiency of urban neighborhoods in terms of creative city indicators (Case study: Bonab city), *Quarterly Journal of the Iranian Geographical Association*, 15, 48, Spring 2016, 324-351.

Scott, A.J., 2006. Creative cities: Conceptual issues and policy questions. *Journal of urban affairs*, 28(1), 1-17.

Scott, A.J., 2014. Beyond the creative city: cognitive–cultural capitalism and the new urbanism. *Regional Studies*, 48(4), 565-578.

Sepehrnia, R., 2015. Creative Attitudes Towards the Tourism Industry in Promoting Cultural Capital in Iran, *Quarterly Journal of Initiative and Creativity in the Humanities*, 4, 4, 51-70.