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Analyzing Physical-Spatial (Architectural) Components in Creating a Sense of Attachment from the Perspective of Tourists (Case Study: Si-O-Se-Pol Bridge in Isfahan)

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ABSTRACT

As an important urban building of the Safavid era in Isfahan, Si-o-se-pol has always attracted the tourists' attention but is on the verge of authorities' lack of attention. The present study aimed to investigate and achieve the effective factors of this valuable building on the sense of attachment among tourists in today's society and respond to questions of which physical-spatial (architectural) elements of Si-o-se-pol have the greatest effects on the creation of a sense of attachment and what relationship physical-spatial elements of this bridge have with the sense of attachment to the place in tourists. To achieve the research objectives, the present study analyzed the effects of bridge architecture components, including geometry, hierarchy, symmetry, centrality, and rhythm. The present quantitative research had a cross-sectional and applied type and was descriptive-correlational that used descriptive and inferential statistics. The statistical population consisted of 214 tourists in Si-o-se-pol. After using desk documents, a questionnaire with 24 items was designed on a Likert scale and was analyzed using SPSS 26. The research findings indicated that symmetry and geometry components had the highest effects on tourists' sense of attachment; hence, the research hypothesis was confirmed. Other physical elements had less validity in measurement. According to research results, the physical-spatial component of the bridge created a part of tourists' sense of attachment. Furthermore, age, gender, and education level had no significant contribution to the creation of a sense of attachment.

Keywords: *Sense of place attachment, Physical (spatial) components, Si-o-se-pol tourist bridge, Isfahan Introduction*

1. Introduction

A group of researchers has emphasized the roles of physical factors of the environment on the creation of place attachment. They introduce physical elements and components of the place as a part of the process of recognition and human identity and mention the important role of the physical design of the environment on the formation of individuals' initial feelings and also the creation of positive feelings in long-term interactions with the place [1].

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Tourist bridges are places where tourists gather and spend their leisure time. It is necessary to identify the effective elements and factors and study them to attract tourists to better organize and exploit these places. Therefore, the presence of people on the bridge to take advantage of the view and create additional uses according to the requirements of space and time turns the bridge into a multifaceted element in the city structure. In the history of bridge building in Iran, the Safavid era should be considered the top period of bridge design and construction, especially intra-urban bridges [2]. Providing the basis for creating public spaces on the bridge and turning it into a place for social interactions are unique features of Si-o-se-pol architecture. This bridge is an example of bridges that attracts the audience's attention due to its special role in the urban structure and society of Isfahan. This bridge not only has not lost its collective and recreational function but has also become the most important place for social tourist events in Isfahan with the creation of historical memory among tourists. Therefore, identifying the elements and context of the construction of Si-o-se-pol and the way of their association with tourists is important in recognizing the collective space. It is possible to find the reasons for the attractiveness of this bridge and the presence of tourists and people of today's society on this bridge by explaining its role in the urban and social status of Isfahan and understanding the factors of their attachment as a collective space.

Several researchers have conducted articles about place attachment and investigated the relationship between humans and the environment from different perspectives. We summarize a few cases as follows. An article titled "Explanation of the place attachment model", [3] examined this model and its various elements and dimensions. The research findings indicated that place attachment was an important aspect of the relationship between humans and places and must be taken into account by urban planners, architects, and designers. [4] sought to review the importance of a valuable complex, Tabriz Grand Bazaar, examine the qualities between these important characteristics of social and cultural heritage, and provide possible solutions to improve their relationships and implementation. [5] conducted research based on the place attachment test in an important square in the center of Hamedan city, called the Avicenna Mausoleum Square. In an article on the new approach to design-oriented urban planning, [6] sought to find the solution and identify the determinants of promotion of the sense of place attachment with an emphasis on the design-oriented planning approach. [7] conducted an article and provided a spatial analysis of the neighborhood-based economic and social approach to recreating the worn-out textures of urban regions (case study: Districts 4 and 5 of Zahedan city). According to [8], given that knowledge of land use models and their changes over time are prerequisites for the optimal use of national capital, the extraction of land use maps can be considered the most important objective in the management of natural resource bases.

This research sought to analyze physical-spatial components with the highest effects on the presence of tourists and citizens in Si-o-se-pol of Isfahan. A few and insufficient studies examined this field. Therefore, the following main questions were raised: Which physical-spatial elements have the highest effect on creating a sense of attachment to Si-o-se-pol Tourist Bridge, and what relationship exists between physical-spatial elements of this bridge and a sense of place attachment in tourists? Physical components in historical buildings and their association with people's feelings are the rule that researchers in every valuable place seek to understand scientifically and introduce to the next generation. This experience must be transferred to the architects of the next generation to preserve the national identity. This research sought to find an answer to its question. The physical-spatial elements of Si-o-se-pol constituted the independent variable of the research, and the sense of attachment in tourists on the bridge was the dependent variable.

2. Theoretical principles

-Body: According to Fritz Steele, the size of a place, degree of enclosure, contrast, scale, proportion, human scale, distance, texture, color, smell, sound, and visual variety are the most important physical factors affecting the sense of place and perception [9]. The body is the mold of things that build the object. What is poured into the body builds the mold. The body finds a form in malleable matter. In other words, the malleable matter reveals its essence and truth in every appearance.

- Physical-spatial elements of architecture

Using the principles and rules, which make design regular and non-random, has always been taken into consideration by architects [10] and includes the following cases:

-The geometry

Geometry is an important characteristic of Si-o-se-pol and the organizing and coordinating factor of bridge architecture. Geometry is a suitable tool for ordering architecture and establishing conscious relationships between building components to enable spatial integration as a creative and purposeful combination ([11],[12]). Geometry has a longitudinal presence in all levels of existence, and all levels of the world are connected through life-giving geometry. The form world finds a rational reference and the material world finds an exemplary reference [13].

- Hierarchy

Hierarchy is the reason for the logical association between components and open and closed spaces of the bridge and causes no confusion for tourists. This combination of bridge architecture creates an exciting atmosphere and distinguishes the bridge architecture. The fraction to the whole combination, including pedestrian and riding routes, is a place to stop and pass from one space to another, including the architectural characteristics of Si-o-se-pol. Architecture experts admit that hierarchy means creating a regular combination of formal and spatial elements and considering the difference and paying attention to their importance [14]. The hierarchy implies that there are real differences between forms and spaces in most and perhaps all combinations, and these differences reflect their importance and also their functional or symbolic roles, and it is necessary to clarify these differences by a specific rule established between forms and spaces [15]. The importance of hierarchy is also in two things; first, the gradual acquisition of the competencies, and second, not getting stuck when going from one space to another [16].

- Rhythm and repetition

Rhythm refers to the frequency of repetition of elements presented by architecture and space that are created by structures/openings and windows/walls, as well as sub-divisions of building facades, and the status of street furniture.

Repetition: It refers to ordering the components of a composition. Repetition in the form of rhythm, as seen in music or architecture, is an infinitely simple principle of composition that seeks to achieve a sense of coherence ([17],[18]).

- Symmetry

Symmetry refers to a practical concept in many sciences and techniques that provides a simple expression and the possibility of structuring and organizing a collection. The existing symmetry in Iranian architecture mainly originates from a kind of balanced and thoughtful view that tries to create a balance between different weights in the visual scope of the interior of the building [19].

- Axis

The axis refers to a strong, shadow-casting, and organizing device that is created depending on the placement of two-point elements at its two ends. These elements can be manifested in the form of central forms, vertical surfaces, spaces, or entries [14].

- Sense of place attachment

Place attachment is based on individuals' sensory connections with a place based on "self" and their internal interactions in facing the place, and it also depends on the degree of social belonging [20]. The sense of place attachment means public mental perception of the environment and their more or less conscious feelings about their environment which places a person in an internal relationship with the environment so that the individual's understanding and feeling are linked and integrated with the semantic context of the environment [21]. In addition to creating the feeling of comfort from an environment, the relationship of place, or a part of a space, which has acquired a special identity through factors in it, is a cultural concept that people demand. Therefore, everything in a place needs space [22]. A place is defined materially by the structure of the form and function in which it occurs and acquires meaning and soul with the creation of its image and memory in the human mind over time [23, 33]. Place attachment is created based on cognitive, emotional, functional, and behavioral interaction between people, groups, and social-physical places over time [3]. Therefore, place attachment can be expressed with four factors: cognitive, emotional, functional, and behavioral. The cognitive factor is an important

branch of cognitive science and cognitive psychology and an important approach to psychological sciences and aims to study cognitive structures and mechanisms of the mind and brain .[24]

-Cognitive

Cognitive psychology can suggest solutions to affect other individuals' minds and change, modify, or strengthen them by dominating brain mechanisms for learning, memorizing, thinking, revising, and shaping individuals' minds.[25]

-Emotional

The individuals' levels of interests, emotions, and feelings, which are obtained from learning, are discussed in the emotional field. Therefore, when people express interest in certain phenomena and become attached to them, they gradually react to them. According to the value system created in their cognitive field, they maintain and sustain that value system and seek to maintain it with dependence.[26]

-Functional

Functional benefits are derived from a specific service that can implement its practical and useful goals.[27]

-Behavioral

Behavior refers to an observable action that comes from you or another person. Behavior is usually in response to an internal or external stimulus.

There is sufficient knowledge about the optimal quality of physical elements in the bridge in all components, but they cannot be included in one article due to the scope of their meanings; hence, the researcher started the research by referring to spatial physical concepts and their relationship with the above-mentioned attachment factors.

3. Case study

Si-o-se-pol Bridge in Isfahan was the case study. It was built to expand Isfahan city to the south and connect upper and lower Chahar Bagh Boulevard in a way that the extension of the collective space of Chahar Bagh Boulevard is built on Zayanderud. This bridge is also called The Allahverdi Khan, Jolfa, and Zayanderud Bridge, and is called Chahar Bagh Bridge due to 33 springs and 295 meters long, and 13.5 meters wide as it connects the northern Chahar Bagh to the southern Chahar Bagh. It is called Jolfa Bridge as it connects the city to Jolfa [28].

Figure 1. Si-o-se-pol bridge of Isfahan, eastern view (source: Isfahan Municipality website)

5. Research method

The present study was initially conducted using library studies and then developed a theoretical framework and determinants of the sense of attachment. Thereafter, the attachment and physical components were explained by observing the research scope and also examining the tourists' opinions. A questionnaire was prepared and distributed on a Likert Scale according to these components. According to advisors' and supervisors' opinions, the physical-spatial components (architecture) were the independent variable and the level of place attachment was a dependent variable for measuring the current status. The present research was quantitative and had a survey type in terms of method, and was cross-sectional in terms of social perspectives. It was applied in terms of purpose, and descriptive-correlational in terms of data analysis. Therefore, descriptive and inferential statistical methods were used to provide clear tables to reach research objectives and hypotheses. In this regard, descriptive statistics methods, including frequency statistics, standard deviation, skewness, and kurtosis were utilized to describe data, and the inferential statistical methods, including Pearson correlation and regression tests using SPSS26 at a significance level of 0.05 were used to analyze research data and

observations. The statistical population of the research consisted of non-citizen tourists who were present in Si-o-se-pol. The sample size of 214 was obtained using Morgan's table and based on the tourist statistics of the spring of 2019, and local travels published in the publication of national tourist statistics and information. The number of visitors (without residence), or tourists, in Isfahan was equal to 1,056,654 who were selected as the sample, and the data were collected from them in questionnaires prepared based on the theoretical principles of the research. According to the opinions of some researchers [29, 34], a four-dimensional structure is used for the concept of place attachment, including cognitive, emotional, behavioral, and functional dimensions. Three questions were used to measure the emotional and behavioral dimensions, 5 questions were used to measure the emotional element, and 4 questions were utilized to measure the functional element to measure the respondents' place attachment. The independent variable of the research included five dimensions, namely geometry, hierarchy, rhythm, and symmetry, which were used to measure each dimension from two questions and a total of ten questions. The dependent variable of the research included dimensions (functional, emotional, behavioral, and cognitive), and age, sex, and education levels were also asked in the questionnaire. The articles by [4], based on construct and face validity, were used [4]. The questionnaire was approved for face validity by five professors of architecture, urban design, and urban planning. Construct validity emphasized to what extent the test measured the theoretical construct or desired trait. This assessment requires three basic measures: First, the creator of the test must carefully analyze the target trait, then pay attention to the relationship of the trait with other variables, and find out through experiments whether the hypothetical relationships really exist [30] (Sharifi: 2001, 248). Face validity refers to the extent to which the test questions are similar in appearance to the subject prepared for its measurement [31].

Therefore, the research hypotheses are presented as follows: Spatial-physical components directly affect the sense of attachment. Spatial physical components consist of axis, rhythm, repetition, geometry, hierarchy, and symmetry which have ordering elements, and the dimensions of place attachment include function, emotion, behavior, and cognition.

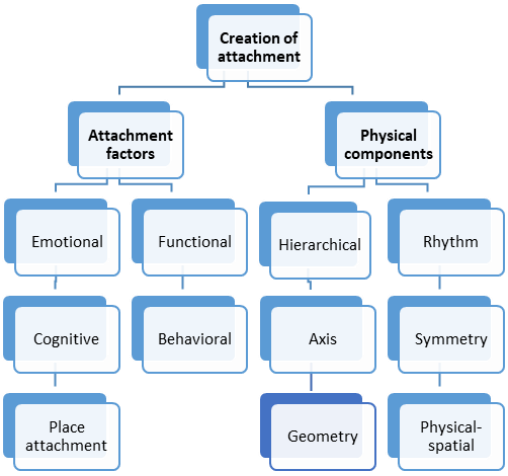


Figure 1. Conceptual model of the research (source: research findings)

6. Research findings

A majority of the participants (58.4%) in the research were males. The highest frequency of education level was related to high school diplomas with 42.0% frequency and the lowest frequency belonged to Ph.D. and associate degree categories with 3.7% frequency. The minimum and maximum values were 19 and 62 years for the age variable respectively, and the mean and standard deviation of the participant age were 34.324 and 9.838 years respectively.

Table 2. Percentage distribution of physical-spatial criteria in terms of items and answer categories

	Physical-spatial criteria	Very low	Low	Moderate	High	Very high
Axis	The axis is a hypothetical factor as a line that organizes the form and spaces around itself and has the characteristics of an organization. To what extent can this principle be understood and observed in Si-o-se-pol?	0	0	9.8	53.7	36.4
	In your opinion, to what extent this principle is a special feature of Si-o-se-pol?	0	0	0.5	40.2	59.3
Geometry	Geometry means the order and harmony in a building. To what extent this principle can be understood and observed in Si-o-se-pol?	0	0	5.1	16.4	78.5
	In your opinion, to what extent this principle is a special feature of Si-o-se-pol?	0	10.7	13.6	9.8	65.9
Hierarchy	Hierarchical disorder in the space causes mental disorders such as confusion, lack of sense of place, fatigue, and fear of getting lost.	0	24.3	11.2	39.3	25.2
	In your opinion, to what extent this principle is a special feature of Si-o-se-pol?	0	13.1	26.6	36	24.3
Rhythm	Rhythm is a special state of repetition. It is a regular or coordinated repetition of lines, forms, or colors. To what extent can this principle of Si-o-se-pol be understood and observed?	0	12.1	14	0.9	72.9
	In your opinion, to what extent this principle is a special feature of Si-o-se-pol?	0	0	0	7.9	92.1
Symmetry	Symmetry is a special state of balance that is created by using identical parts on both sides of an implicit line or around a point. To what extent can this principle of Si-o-se-pol be understood and observed?	0	0	0	4.7	95.3
	In your opinion, to what extent this principle is a special feature of Si-o-se-pol?	0	0	0	8.9	91.1

Source: Research findings

Table 3. Distribution of percentage of place attachment criteria in questions and answers

Factors of place attachment	Very low	Low	Moderate	High	Very high

	I like tourist bridges like Si-o-se-pol.	0	0	23.4	9.	66.8
	I do not prefer new bridges to Si-o-se-pol.	0	0	44.4	42.5	13.1
Functional	I like to spend hours on this bridge.	0	15.4	43	41.6	0
	It is the first place I choose to get out of the house for leisure time.	0	15.4	45.3	39.3	0
	When I'm on this bridge, I feel like I'm at home.	0	32.2	44.4	11.7	11.7
	I have many memories of this bridge.	0	0	43	43	14
Emotional	Si-o-se-pol bridge of Isfahan is my favorite place.	0	15.4	30.4	51.9	2.3
	If it were possible, I would come to this bridge every day.	0	27.1	46.7	14.5	11.7
	People who use this bridge are like me.	8.4	52.8	12.6	26.2	0
	I am willing to pay for the maintenance and stability of this bridge.	0	37.4	16.4	32.2	14
Behavioral	I am willing to do whatever for its maintenance.	0	10.3	0	47.7	42.1
	I feel that people are respectful and friendly here.	0	20.6	34.6	16.8	28
	When I think of Isfahan, Si-o-se-pol is the first place that comes to mind.	0	11.7	0	66.4	22
Cognitive	Si-o-se-pol has all features that a recreational bridge should have.	0	10.3	10.3	0	79.4
	There is something about Si-o-se-pol that makes it different from other bridges.	0	0	15.4	25.7	58.9

Source: Research findings

Table 4. Description of respondents based on the education level

Education level	Frequency	Percentage
High school diploma	90	42.1

Associate degree	8	3.7
Bachelor	68	31.8
Master	40	18.7
Ph.D.	8	3.7
Total	214	100

Table 5. Description of respondents based on gender

Gender	Frequency	Percentage
Female	89	41.6
Male	125	58.4
Total	214	100

Source: Research findings

Source: research finding

Table 6. Description of respondents based on age

Name of variable	Number of respondents	Minimum	Maximum	Mean	Standard deviation (sd)
Age	213	19	62	34.324	9.838

Source: Research findings

1.5. Descriptive statistics indices of research variables

Table 7 reports descriptive statistics indices of research variables, including the number of respondents, the minimum value, the maximum value, mean, standard deviation, skewness, and kurtosis.

Table 7. Descriptive statistics indices of research variables

Name of variable	Number of respondents	Mini`mum	Maximum	Mean	Sd	Skewness	Kurtosis
Axis	214	3.5	5	4.428	0.497	-0.255	-1.136
Geometry	214	2.5	5	4.521	0.58	-1.175	1.088
Hierarchy	214	2	5	3.685	0.789	-0.061	-0.529
Rhythm	214	3.5	5	4.633	0.55	-1.1	-0.395
Symmetry	214	4.5	5	4.932	0.172	-2.145	2.625
Physical-spatial criteria	214	4	4.8	4.44	0.205	-0.17	-0.831
Functional	214	2	5	3.028	0.954	0.763	-0.259
Emotional	214	2.4	4.6	3.164	0.652	0.986	0.185

Behavioral	214	2	4.667	3.656	0.785	-0.608	-0.372
Cognitive	214	2.333	5	4.302	0.672	-1.057	-0.157
Place attachment	214	2.517	4.65	3.538	0.477	-0.204	-0.607

Source: Research findings

According to the results of Table 7, the skewness and kurtosis coefficients are within the appropriate range for all variables; hence, data of research variables are normal, and parametric tests should be used to examine the research hypotheses. In the present study, Pearson correlation was used to examine the relationship between research variables, and the results are presented as follows. The statistical hypotheses are as follows for the correlation test.

According to the results and based on the coefficient of determination of the model in the first step (0.004), gender, age, and education level explained about 0.4 of the variances in the dependent variable, "place attachment", and based on the value of the coefficient of determination in the second step (0.153), "Physical-spatial parameters" explained about 15% of the variance.

Table 8 . Regression analysis

Model	Sum of square		Df	Mean square	F	P-value
First step: Gender, age, and the education level	Regression	0.209	3	0.070	0.302	0.824
	Residual	47.591	207	0.230		
	Total	47.799	210			
Second step: Physical-spatial criteria	Regression	7.331	8	0.916	4.574	0.000
	Residual	40.468	202	0.200		
	Total	47.799	210			

Source: Research findings

The statistical hypotheses are set for the above regression test as follows:

Table 9. Impact factors and standard regression coefficients

Model		Non-standardized impact factors		Standardized impact factors	t	P-value	Multicollinearity	
		B	Standard error	Beta			Tolerance statistic	VIF
First step: gender, age, and education level	Constant	3.675	0.161	-	22.788	0.000	-	-
	Gender	-0.054	0.067	-0.056	-0.804	0.422	0.991	1.009
	Education level	0.007	0.027	0.019	0.269	0.788	0.918	1.089
	Age	-0.002	0.003	-0.038	-0.53	0.597	0.926	1.08
Second step: Physical-spatial criteria	Constant	7.114	1.264	-	5.63	0.000	-	-
	Gender	-0.021	0.064	-0.022	-0.326	0.745	0.948	1.055
	Education level	-0.006	0.025	-0.017	-0.246	0.806	0.893	1.12
	Age	0.000	0.003	0.004	0.065	0.948	0.899	1.113
	Axis	0.014	0.067	0.014	0.207	0.836	0.86	1.163
	Geometry	0.184	0.056	0.225	3.293	0.001	0.901	1.11
	Hierarchy	-0.025	0.045	-0.042	-0.563	0.574	0.742	1.347
	Rhythm	0.038	0.067	0.044	0.57	0.569	0.688	1.453
	Symmetry	-0.914	0.192	-0.331	-0.4757	0.000	0.868	1.153

Source: research findings

The statistical hypotheses are set as follows to test the significance of the regression coefficients:

H1: The regression coefficient of "physical-spatial criteria" is not zero.

H0: The regression coefficient of "physical-spatial criteria" is zero.

The above table presents information about regression effect coefficients as well as standard

regression coefficients and information about the significance of these coefficients. The accuracy of the regression effect coefficient related to "geometry" (β=0.225) and "symmetry" (β=-0.331) and the significant value of the t-value related to these variables s significant effect of these variables on "place attachment". Therefore, geometry and symmetry can predict place attachment, and the regression equation is as follows:

Place attachment =(0.184*geometry)-(0.914*symmetry) +7.114

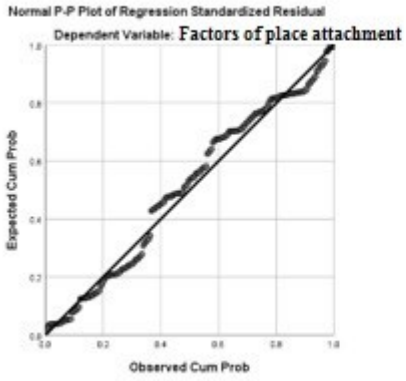
Among the age, gender, and education level variables, none of them had a significant effect on place attachment, and among the physical-spatial factors, geometry with a standard coefficient of 0.225 and symmetry with a standard coefficient of -0.331 were the most effective components on place attachment. The distribution diagram of the residuals and predicted values indicated that there was no clear relationship between the residuals and the predicted values, and it was consistent with the assumption of linearity. According to the normal Q–Q plot for the residuals, it was found that the residuals were relatively normally distributed because according to this diagram, if all points are on a hypothetical line, then the residuals completely follow the normal distribution.

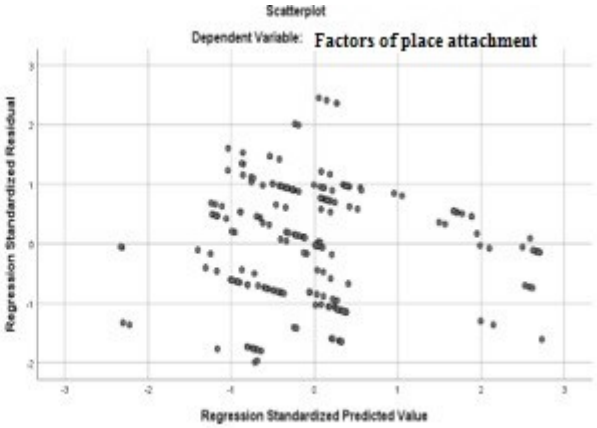
The following statistical hypotheses are set for the above regression test:

H0: "Physical-spatial criteria" cannot predict "place attachment."

H1: "Physical-spatial criteria" can predict "place attachment."

The results of the analysis of variance (ANOVA) of the regression model in Table 8 indicate the significance of the combined and linear effects of the independent variables. On this basis, the significance value of the test, or F, is equal to 0.000 and smaller than 0.05, and thus the combined and linear effects of independent variables on "place attachment" were statistically significant.





7. Conclusion and summary

The present research sought to find the relationship between the physical-spatial elements and the sense of place attachment. The main elements of physical characteristics included the axis, geometry, hierarchy, and symmetry of the attachment factors, and the second factor of the research included functional, emotional, behavioral, and cognitive factors. The result of the content analysis of research indices and measurement models in the present research indicated that the model designed with the observed data in the above-mentioned dimensions was suitable for measuring place attachment, thereby confirming the research hypothesis.

The present research was consistent with other similar studies all of which expressed the relationship of physical elements with the sense of place attachment, but the only differences were in the type of place, the attitude, and the selection of elements in the buildings. Daneshpour et al. referred to the most important dimensions of the relationship between humans and places in their article, and Torkashvand referred to the historical importance of places. Fath Baghali and Sanieipour also write a similar article with the same approach in Tabriz grand bazaar. Their results all indicated the importance of physical elements in creating a sense of attachment to historical buildings. The difference of this research was the research in a place with different properties and functions and it observes properties of the above-mentioned elements in a different place.

The physical-spatial factors also indicated the appropriate validity of the variable. Among the age, gender, and education level variables, none of them had a significant effect on the creation of place attachment. Among the physical-spatial factors, geometry with a standard coefficient of 0.225 and symmetry with a standard coefficient of -0.331, and then rhythm had the highest effects on place attachment respectively. The research findings indicated that individuals' factors (functional-cognitive) about the bridge played decisive roles and the development of individuals' sense of attachment to Si-o-se-pol was the main factor. According to research findings, the functional, cognitive, behavioral, and emotional factors respectively had the highest prediction power in creating a sense of place attachment. The research results were consistent with the findings of research by [29], indicating that place attachment could be identified with four dimensions, and the individual's emotional and cognitive dimensions of place attachment were the factor of promoting place attachment. Rather than

choosing the bridge as a building to pass, a sense of pleasure and satisfaction from the bridge in tourists make a nostalgic and emotional feeling towards the place, and as the body of the bridge initially has the greatest effect on the audience's understanding and knowledge of that place, physical dimensions of the bridge in the person's mind create images with memorable and special identity meanings in tourists. The causal relationships of physical-spatial elements with place attachment in this study indicate the positive and significant effects and confirm the research hypothesis. The correlation between different dimensions of attachment was consistent with the findings, indicating the relationship between elements of attachment. The research results indicated that the sense of attachment was created under the influence of physical-spatial factors on tourists. The geometry and symmetry elements as well-known factors and important characteristics of Iranian architecture, especially during the Safavid era, created the greatest feeling in tourists, and in other words, all tourists had an understanding of geometry and symmetry elements. Therefore, any reconstruction, renovation, and restoration of the bridge body must be according to the symmetry, geometry, and rhythm which have the highest effects on tourists respectively. According to the results, even though the axis and hierarchy components have the lowest relationship with tourists, changes in recent years such as the drying of Zayanderud have put the bridge in an unfavorable status, and the lower floor of the bridge, which is an important part of the hierarchy component, is lost and the presence of tourists in terms of the natural order of the river, which can be accessed through a hierarchy, has no meaning anymore. The research limitations included the mere attention to physical and spatial elements since other components also increase the sense of attachment. According to the [32], being rooted in a place justifies being attached to a place. Unlike the above theory, the creation of a sense of attachment in the present study sometimes appeared in tourists, who came to see Si-o-se-pol for the first time, had desires to see the place again, and even wanted to stay in the place that was not examined in this research. Other researchers are suggested to conduct similar research with approaches such as environmental psychology or phenomenology. The above studies cause an understanding of the values of historical and tourist bridges, and thus the relevant organizations and bodies will take measures to preserve and restore these buildings and their related environments for the presence of tourists due to knowledge about the identity and history of tourist bridges.

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