



Research Paper: The Relationship between Social Capital with Environmental Protection Behaviors



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Abstract

Protecting the environment is one of the ways that the people of every society take to support the next generations. This research was conducted with the aim of investigating the relationship between social capital with environmental protection behaviors. This research is correlational. Among the students of Hamedan University in the academic year of 2020-2021, 150 of them were selected by convenience sampling method and completed the research questionnaires including Social Capital Questionnaire (SCQ) and Environmental Behavior Questionnaire (EBQ). Data were analyzed using Pearson's correlation coefficient and SPSS-22 software. The findings showed that there is a positive and significant relationship between social capital and its components with environmental protection behaviors ($P < 0.01$). According to these findings, it can be concluded that by strengthening social capital, it can be expected that pro-environmental behaviors will increase and better conditions will be provided for the future generations of the country.

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1. Introduction

Social capital is the effective functioning of social groups through interpersonal relationships, sense of identity, perception, norms and customer values. This capital will eventually lead to trust, coordination and constructive interaction against destructive conflict (Mishchuk et al., 2023). Coleman (1988; cited by Colclough & Sitaraman, 2005) believes that social capital is a part of the social structure that allows the individual to achieve his interests. If physical capital is completely tangible and is cast in visible material form and if human capital is less tangible and is present in the skills and knowledge acquired by the individual, then social capital is far more intangible because it is in the relationships that are established between individuals. Just as physical capital and human capital facilitate productive activity, social capital does the same (Field, 2016).

One of the important social actions of every person in the society is his role to support the life of future generations. When the values of a society are oriented in such a way that people think about preserving environmental resources, this will make the conditions of the country suitable in the present and future, and all people, both current and future generations of the country, will benefit from the capacities of the environment (Emina, 2021).

One of the things that can increase the commitment of people to preserve the environment is the social capital prevailing in the society (Macias & Williams, 2016). The relationships and trust that the people of the

society have in each other can help all people feel connected with each other and take steps towards preserving the environment in which they live by forming an alliance between them. On the other hand, if the social capital of society decreases, people will no longer see the need to support each other, and values based on consumption will increasingly replace environmental protection (Yildirim et al., 2021).

In this regard, researchers believe that social capital levels have a significant impact on environmental behaviors and environmental protection, and people's environmental behaviors and their desire to preserve the environment depend on their personality, status and social capacities in society. Studies have also shown that the higher the social capital in a society, the higher the desire to protect the environment (Savari & Khaleghi, 2023; Xu et al., 2024). Therefore, paying attention to social capital is one of the important axes in preserving the environment. The current research also seeks to investigate the relationship between social capital and environmental protection behaviors.

2. Methods

2.1. Statistical Population, Sample, and Sampling Method

This research is correlational. Among the students of Hamedan University in the academic year of 2020-2021, 150 of them were selected by convenience sampling method and completed the research questionnaires including Social Capital Questionnaire (SCQ) and Environmental Behavior Questionnaire (EBQ). Incomplete questionnaires were excluded from the data

analysis process. Data were analyzed using Pearson's correlation coefficient and SPSS-22 software.

2.2. Instrument

Social Capital Questionnaire (SCQ): Social Capital Questionnaire created by **Onyx and Bullen (2000)** and has 36 items. It classified into eight dimensions, encompassing value of life (3 items), tolerance of diversity (3 items), neighborhood connections (5 items), family and friends connections (3 items), work connections (4 items), community participation (7 items), feelings of trust and safety (5 items) and proactivity (6 items). All 36 SCQ items were provided with a 4-point Likert-type scale ranging from 1 (no, not much or no, not at all) to 4 (yes, definitely or yes, frequently). Its validity and reliability have been confirmed in the research of **Onyx and Bullen (2000)**. **Yari et al (2014)** investigated its validity and reliability in Iran. Exploratory Factor Analysis (EFA) was conducted to evaluate factor structure of the Persian SCQ, which showed a moderate replicability, validity, and reliability (Cronbach alpha= .79) to those found in previous studies. Twelve factors extracted with eight values greater than 1 which altogether accounted for 76.23% of the total variance. Applying Cattell's scree test, it was indicated that between seven and eight factor extracted. The correlations between factors

were detected in the low (at the lowest 0.002) to modest (at the highest 0.614) range.

Environmental Behavior Questionnaire (EBQ): This questionnaire was developed by **Kamal et al. (2021)**. It has 32 items and is scored in the form of five options from 1 (always) to 5 (never). Items 1 to 8 and 25 are classified in the field of energy consumption such as electricity and gas, Items 9 to 12 are water consumption, Items 13 are wastewater production, Items 14 to 24, 29, 30 and 32 are classified as waste and recycling, and Items 26 to 28 are classified as air pollution. In the study of **Kamal et al. (2021)** the results showed that the questionnaire with 36 items had CVI and CVR of 0.896 and 0.726, respectively, and 4 items should be excluded from the questionnaire due to non-compliance with content validity indices. The questionnaire exhibited high internal consistency and hence was acceptable owing to the Cronbach's alpha coefficient of 0.85.

3. Results

The mean and standard deviation of the age of the students were 21.17 and 3.06, respectively. 91 were female students and 59 were male students. The mean and standard deviation of the social capital and environmental behavior are presented in **Table 1**.

Table 1

The mean and standard deviation of social capital and environmental behavior

Variables	subscale	Mean	Standard deviation
Social capital	value of life	4.81	1.82
	tolerance of diversity	5.36	1.46
	neighborhood connections	3.57	1.37
	family and friends connections	8.74	2.92
	work connections	6.32	1.44
	community participation	11.68	2.17
	feelings of trust and safety	7.96	1.34
	proactivity	10.08	2.69
	total score of social capital	65.87	3.50
Environmental behavior		81.36	5.27

The Kolmogorov-Smirnov test was not significant to check the data distribution (social capital: $F = 0.11$, $P = 0.47$; environmental behavior: $F = 0.84$, $P = 0.20$), which indicates

that the data have a normal distribution. The correlation matrix of the relationship between social capital and environmental behavior is presented in [Table 2](#).

Table 2

The correlation matrix of the relationship between social capital and environmental Behavior

Variables	1	2	3	4	5	6	7	8	9	10
Value of life	1									
Tolerance of diversity	0.53**	1								
Neighborhood connections	0.67**	0.43**	1							
Family and friends connections	0.50**	0.35**	0.30**	1						
Work connections	0.43**	0.41**	0.44**	0.60**	1					
Community participation	0.61**	0.54**	0.59**	0.54**	0.42**	1				
Feelings of trust and safety	0.47**	0.32**	0.41**	0.56**	0.50**	0.31**	1			
Proactivity	0.59**	0.36**	0.63**	0.40**	0.37**	0.29**	0.47**	1		
Total score of social capital	0.48**	0.42**	0.36**	0.64**	0.60**	0.37**	0.54**	0.46**	1	
Environmental Behavior	0.37**	0.34**	0.40**	0.41**	0.48**	0.33**	0.51**	0.30**	0.39**	1

As can be seen in Table 2, there is a positive and significant relationship between social capital and its components with environmental behavior ($P < 0.01$).

4. Discussion

This research was conducted with the aim of investigating the relationship between environmental protection behavior and social capital. The findings showed that there is a positive and significant relationship between social capital and its components with environmental protection behavior.

This finding is in line with the research done in this field (Savari & Khaleghi, 2023; Xu et al., 2024; Yildirim et al., 2021). For example, Savari & Khaleghi (2023) showed that the components of social capital (social trust, social networks and social engagement) can facilitate forest conservation measures and were able to explain 46.3 % of its variance. In addition, the findings of their study indicated that these components affect protective measures through a specific mechanism, which means that they can affect protective behaviors by influencing the cognition of policies and increasing the awareness of rural communities. Xu et al. (2024) showed that social network expansion has a significantly positive effect on all three types of environmentally friendly behaviors.

When the members of the society have trusting relationships with each other, then with the formation of unity among them, they take steps towards improving their society. They support the resources available in their country and will use those resources properly. It has been previously shown that social commitment can be associated with

greater environmental protection (Michel-Guillou & Moser, 2006). In fact, people are motivated to consider the environment as their own and preserve it instead of destroying resources. In this research, it was also observed that components such as bonding with colleagues, neighbors, family and friends, and a sense of security, trust, and participation in society have a positive and meaningful relationship with environmental protection behaviors.

This research had some limitations. The research method was correlation type, which is not able to show the cause and effect relationship between the research variables. The sampling method was accessible, which did not give all students the opportunity to participate in the research sample. In general, according to the findings obtained and according to the current conditions of our country, it is suggested that the authorities should think about strengthening the social capital among the members of the society in order to provide environment protection for the future generations of the country.

5. Conclusion

The findings of the research showed that there is a positive and significant relationship between social capital and its scales with pro-environmental behaviors, and by strengthening social capital in society, it can be expected that people will better use the resources and capacities of the environment.

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Conflicts of Interest

No conflict of interest has been reported.

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