Investigating the Relationship Between the Use of Virtual Space and the Political Participation of the Citizens of Bandar Abbas City

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Article Info	ABSTRACT
	Objective: Today it is impossible to imagine human existence without information and communication technology. This study aimed to examine the relationship between the use of virtual spaces and citizens' political participation in Bandar Abbas, Iran. **Methods**: The survey research method was used to collect information on the use of virtual spaces and political participation. The study focuses specifically on citizens of Bandar Abbas who have reached the legal age of political participation (over 18 years). The sample size of 383 individuals was selected using cluster sampling technique from four districts of Bandar Abbas. Statistical analysis was performed using SPSS software and hypothesis testing was performed using Pearson correlation coefficient, frequency tables and graphs. Spearman and Pearson correlation methods were used to measure the relationship between variables, while the chi-square test was used to examine the association between gender and political participation. To determine the extent of the use of virtual spaces and political participation, a comprehensive questionnaire with 33 questions was completed. **Results**: The implications of this study highlighted the need for policymakers and political actors to adapt to the changing landscape of political participation in the digital age. It is critical to ensure that virtual spaces are accessible, inclusive, and provide opportunities for diverse voices to be heard. **Conclusions**: Addressing political dissatisfaction and concerns expressed in virtual spaces can help strengthen democratic processes and promote a more engaged and participatory citizenry.

Introduction

Political participation is an important topic in political sociology and is considered one of the important indicators of political development in countries. This aspect includes various dimensions and aspects that can contribute to the political system in achieving a desirable state in terms of proximity to democracy. In fact, the level and type of political participation serve as an appropriate measure for assessing the legitimacy of governance (Masoudnia et al., 2011). Political participation is crucial in democratic countries because it allows people to hold their elected representatives accountable and play a role in governing their country. Traditionally, political participation takes the form of voting, joining political parties, attending political rallies, and contacting elected officials (Ahmad Said, 2019). These forms of political participation are considered essential to the functioning of democratic systems because they ensure that citizens participate in crucial decisions (Kaskazi & Kitzie, 2023). Political participation is considered a crucial indicator of political development in states. This is particularly evident in developing countries that are in transition from traditional to modern societies. Governments are forced to encourage political participation to gain legitimacy. Furthermore, a high level of public political participation in decision-making processes and policies reflects a developed political culture and the political development of a society (Jafarinia, 2012). The impact of reduced political participation on the legitimacy and authority of the government is a significant problem for the future of the social system in Iran. Political participation and legitimacy are inherently linked, as political participation is essential to the legitimacy and legal authority of a government. When political participation declines and people distance themselves from the government, it undermines the government's legitimacy and authority (Bagheri et al., 2018).

In today's world, technology has become an integral part of human life, changing various aspects of society and leading to the transition from an industrial society to an information society. The emergence of new and innovative forms of communication and large-scale information networks has created new social spaces and shaped individuals' relationships and social skills. We are currently experiencing a shift from a physical world to a virtual world in which technology and information play a central role (Adibi Sedeh et al., 2014). The influence of electronic media on politics and society is a topic that Manuel Castells, a well-known sociologist, has studied and theorized in depth. Manuel Castells argues that electronic media plays an important role in shaping

new policies. The integration of living spaces and new media has had a profound impact on various aspects of life and has led to changes in the field of politics, which represent a crucial element in this context (Anttiroiko, 2015). Group media platforms facilitate the connection between different components of public discourse, thereby leading to the development of democratic behaviors and policies. The Internet, with its enabling environment for revitalizing political participation and democracy in advanced societies, has also empowered young people in developing communities. It seems that social media networks have emerged as a novel means of influencing socio-political changes and inevitably lead to disruptions and crises in the political sphere (Ida et al., 2020).

Mass media and means of communication play an important role in all countries. The impact of these tools on our understanding of the world and our awareness of events and developments is profound. In the era of globalization, a sense of a unified culture is emerging, and the changes and transformations in human life and the response to basic needs emphasize the importance of mass communication means (Flew et al., 2016). The spread of communications technology and its impact on the fabric of human life and human societies raise fundamental questions about the position, role and function of these cultural, social, political and economic phenomena. In the political sphere, it is worth noting that the Internet brings fundamental and comprehensive changes in the nature, forms and structures of power in various societies, both advanced and developing. This has led researchers to question the extent and nature of these current and future changes and their impact on the political life of societies and the relationship between governments and citizens (Vasist et al., 2023).

Social media platforms have experienced significant growth in recent years and have become a prominent media category. With their unique features such as accessibility, 24/7 availability, easy and fast search functions and user anonymity, social media platforms serve as tools for promoting and disseminating political, social and cultural symbols, beliefs and ideologies. They also play a crucial role in creating political and social awareness worldwide, facilitating active communication between political actors and the public, and ultimately influencing protest behavior and mobilization worldwide (Vaingankar et al., 2022). Social media platforms can be viewed as new media that have brought about changes in social, cultural, economic and political structures. As a category of social media, they provide Internet users with significant interactive opportunities and

have contributed significantly to increasing civic participation and activism in social and political areas. However, it is important to note that this increase in engagement is shaped by interaction with the social media environment and is influenced by the particular political structure, leading to changes in the political identity of web users that align with the dominant political structure (Malekan et al., 2013). The inherent properties of the web also play an important role in shaping these changes. The functions of the Web contribute as contextual variables to the direction of these changes. For example, the interactive nature of social media platforms and the ability to share and disseminate information quickly and easily have enabled increased political engagement. However, it is important to consider that the influence of social media on political and social engagement is complex and multifaceted and is influenced by various factors such as individual characteristics, social context and political environment (Kabiri et al., 2019).

The expansion of communications technology and its impact on the fabric of human life and human societies raise fundamental questions about the position, role and function of various cultural, social, political and economic phenomena. In this context, in the political sphere, it is worth noting that the Internet brings fundamental and far-reaching changes in the nature, forms and structures of power in various societies, both advanced and developing. This has led researchers to question the extent and nature of these current and future changes and their impact on the political life of societies and the relationship between governments and citizens (Sardarniya, 2009).

Noelle-Neumann's theory of media influence, known as the "spiral of silence," posits that media influences society in three different ways. First, media shapes individuals' perceptions of prevailing opinions in society (Sohn, 2022). This means that the media can influence what people in their community believe are the dominant viewpoints. Secondly, media also has the power to influence individuals' awareness of the creation and dissemination of opinions. By disseminating information and amplifying certain voices, media can shape what individuals perceive as popular or trending opinions in society. Finally, the media contributes to individual conformity, resulting in certain opinions being suppressed while others are accepted by the community. This means that individuals may be more likely to align themselves with the dominant opinions presented in the media, resulting in the silencing of dissenting voices (Chen, 2018). In addition to Noelle-Neumann's theory, (Campbell, 2013) suggests that media can have significant positive effects on

society. These effects include influencing consumption patterns, voting behavior, increasing public awareness, improving public behavior, changing lifestyles, promoting ideologies, and imparting political and social lessons.

The spiral of silence theory is a political science and mass communication theory that states that a person's perception of the distribution of public opinion influences that person's willingness to express his or her own opinion (Noelle-Neumann, 1974). The spiral of silence theory, also known as public opinion theory, suggests that individuals express their opinions more confidently and openly when they notice that their personal opinions are shared by the entire group. However, if the individual notices that their opinion is unpopular in the group, they will be more likely to be reserved and remain silent. In other words, from the individual's perspective, "not isolating yourself is more important than your own judgment," meaning that your perception of how others in the group perceive you is more important to you than the need to express your opinion to be heard to express themselves (Askay, 2015).

(Shahramnia et al., 2017) conducted a research study titled "Measuring the Impact of Social Networks on Political Participation." The aim of the study was to examine the relationship between social network structures and political participation among university students in Mazandaran. They found that there is a positive relationship between social network structures (hierarchical networks and types of participation) and political participation. The results showed that social network structures, particularly structural dimensions, had the greatest influence on university students' voting behavior.

(Malekan et al., 2013) conducted a research study to investigate the relationship between media consumption and political participation among university students at Isfahan University. The study found a significant correlation between dimensions of mass media consumption and the level of political participation among the respondents. (Abdollahyan & Kermani, 2015) conducted a research study titled "Explaining the Relationship between Social Capital of Iranian Users on Facebook and Political Participation in the Real World." The study aimed to investigate the impact of social capital on political participation among Iranian Facebook users. The results of the study indicated that an increase in the social capital of Facebook users leads to an increase in their political participation in the real world.

(Jemna & Curelaru, 2010) conducted a research study titled "Values and Political Participation of Students" on a group of students in Romania. The study aimed to examine the relationship between religious activities and voting behavior among students. The findings of the study revealed that students who have a tendency towards religious activities exhibit a significantly higher level of voting in national elections compared to those who have never engaged in religious participation. (Calenda & Mosca, 2007) conducted a survey study on the impact of the internet on the political engagement of university students at the University of Florence. The study found that a significant number of students have been influenced by the internet in terms of their political engagement, both in online and offline spaces.

Therefore, taking into account the above discussions, it can be claimed that the media, comprising both print and electronic platforms, serve as a vehicle for disseminating intellectual awareness within societies and facilitate the expansion of political and social knowledge within the community. They play a crucial role in mobilizing public opinion, forming beliefs and perspectives, and ultimately influencing behavior and levels of political participation. Given the significant influence of the mass media in shaping the thinking and behavior of individuals in the political sphere, and given the existing gap in knowledge due to a lack of previous research, the aim of this study is to examine the relationship between the use of virtual spaces and citizens' political participation in the city of Bandar Abbas.

Material and Methods

The research methodology used in this study is a survey method. The target group of the study includes all citizens of the city of Bandar Abbas who have reached the legal age for political participation (over 18 years). The sample size consisted of 383 individuals and statistical analysis was performed using SPSS software. Hypothesis testing was conducted using Pearson correlation coefficient formula, frequency tables and cluster sampling technique from four districts of Bandar Abbas city. Data analysis included the use of tools and graphics. To observe the ethical consideration in this research, it was tried to collect the data after obtaining the participants' consent. The participants were assured of the confidentiality of their personal information, and results were provided without specifying the names and details of participants. Ethical considerations were also carefully considered throughout the research process in the quantitative

section, demonstrating the researcher's commitment to respecting the participants' involvement and confidentiality. In this study, a questionnaire was used to collect data. To ensure the validity of the questionnaire, several steps were taken. To gain a comprehensive understanding of the topic, a thorough review of the existing literature on the topic was conducted. This step helped the researchers become familiar with the relevant concepts, theories, and previous studies related to their research topic. The independent and dependent variables of the research were conceptually defined. By establishing conceptual definitions, the researchers ensured that the variables were accurately represented in the questionnaire. The finalized questionnaire was administered to a sample of 30 respondents representing the target population. By administering the questionnaire to a representative sample, the researchers aimed to gather data that accurately reflected the characteristics and perspectives of the target population.

Results

Hypothesis 1: There is a positive relationship between different dimensions of online virtual space and the level of political participation.

Table 1. Correlation between virtual space dimensions and political participation

Correlations					Dimensions of using virtual space	political participation
Residence area						
Restrict No 1	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient		1.000	.356**
			Sig. (2-tailed)		.	.000
			N		98	98
		Political awareness and political participation	Correlation Coefficient		.356**	1.000
			Sig. (2-tailed)		.000	.
			N		98	98
Restrict No 2	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient		1.000	.389**
			Sig. (2-tailed)		.	.000
			N		99	99

		Political awareness and political participation	Correlation Coefficient	.389**	1.000
			Sig. (2-tailed)	.000	.
			N	99	99
Restrict No 3	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient	1.000	.385**
			Sig. (2-tailed)	.	.000
			N	99	99
		Political awareness and political participation	Correlation Coefficient	.385**	1.000
			Sig. (2-tailed)	.000	.
			N	99	99
Restrict No 4	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient	1.000	.460**
			Sig. (2-tailed)	.	.000
			N	87	87
		Political awareness and political participation	Correlation Coefficient	.460**	1.000
			Sig. (2-tailed)	.000	.
			N	87	87

The Spearman correlation coefficient is a nonparametric measure that assesses the strength and direction of association between two variables measured on at least an ordinal scale. It is denoted by the symbol "rs" or the Greek letter "ρ" (rho). This coefficient is often used when the variables analyzed are ordinal or when the assumptions required to perform Pearson product-moment correlation are not met. The table above shows a positive relationship between the level of Internet use and political participation in all restricts. In other words: In all restricts, the use of the Internet leads to increased political engagement among individuals.

Hypothesis 2: There is a positive relationship between the extent of using different dimensions of virtual space and individuals' political awareness.

Table 2. Correlation between virtual space dimensions and political awareness

Correlations				Dimensions of using virtual space	political awareness
Residence area					
Restrict No 1	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient	1.000	.703 **
			Sig. (2-tailed)	.	.000
			N	98	98
		Virtual space and political awareness	Correlation Coefficient	.703 **	1.000
			Sig. (2-tailed)	.000	.
			N	98	98
Restrict No 2	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient	1.000	.636 **
			Sig. (2-tailed)	.	.000
			N	99	99
		Virtual space and political awareness	Correlation Coefficient	.636 **	1.000
			Sig. (2-tailed)	.000	.
			N	99	99
Restrict No 3	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient	1.000	.615 **
			Sig. (2-tailed)	.	.000
			N	99	99
		Virtual space and political awareness	Correlation Coefficient	.615 **	1.000
			Sig. (2-tailed)	.000	.
			N	99	99
Restrict No 4	Spearman's rho	Dimensions of using virtual space	Correlation Coefficient	1.000	.571 **
			Sig. (2-tailed)	.	.000
			N	87	87
		Virtual space and political awareness	Correlation Coefficient	.571 **	1.000
			Sig. (2-tailed)	.000	.
			N	87	87

The table 2 shows that there is a direct relationship between the dimensions of virtual space use and political awareness in all four districts. Put more simply: the more people engage with virtual space, the higher their political awareness tends to be.

Hypothesis 3: There is a relationship or difference between individuals and social characteristics (gender, age, and education) and political participation.

Table 3. Correlation between individuals and social characteristics and political participation

Residence area		Value	df	Asymptotic Significance (2-sided)
Chi-Square Tests				
Restrict No 1	Pearson Chi-Square	9.171 [a]	9	.422
	Likelihood Ratio	10.212	9	.334
	Linear-by-Linear Association	1.928	1	.165
	N of Valid Cases	98		
Restrict No 2	Pearson Chi-Square	5.650 [b]	8	.686
	Likelihood Ratio	6.481	8	.594
	Linear-by-Linear Association	3.161	1	.075
	N of Valid Cases	99		
Restrict No 3	Pearson Chi-Square	14.497 [c]	9	.106
	Likelihood Ratio	15.656	9	.074
	Linear-by-Linear Association	2.133	1	.144
	N of Valid Cases	97		
Restrict No 4	Pearson Chi-Square	3.255 [d]	9	.953
	Likelihood Ratio	4.103	9	.905
	Linear-by-Linear Association	.038	1	.846
	N of Valid Cases	87		

The relationship between gender and political participation has been examined using statistical tests, particularly the chi-square test. This test is appropriate because gender is a nominal variable while political participation is an ordinal variable. Spearman correlation, commonly used to measure associations, cannot be applied in this case. The chi-square test of independence is an alternative method for analyzing the relationship between these variables. The null hypothesis assumes that gender and political participation are independent, while the alternative hypothesis assumes that they are dependent. Based on the results of the chi-square test presented in the table above, it can be concluded that there is no significant relationship between gender and political participation. This is indicated by the p-value (sig) being greater than 0.05 in all regions. In other words, the level of political participation does not differ significantly between the different genders.

To examine the relationship between political participation and age, we used the Pearson correlation coefficient since age is a continuous variable. The results showed that there is a positive relationship between political participation and age for individuals residing in restricts no 1 and 3. This suggests that as people get older, their level of political participation tends to increase. Although there is a positive correlation for individuals in restricts 2 and 4, the relationship is not statistically significant. This is indicated by the p-value being less than 0.05, suggesting that the observed correlation may have occurred by chance. The results showed that only in Restrict 2 people believed that there was a relationship between educational level and political participation. However, in other Restricts, the results show that there is no significant relationship between political participation and educational level. In other words, the level of political participation did not differ significantly between different educational levels.

Discussion

This study aimed to investigate the relationship between the use of virtual space and citizens' political participation in Bandar Abbas, Iran. The findings revealed that there is a significant relationship between the use of the virtual spaces and citizens' political participation. The findings of this study are consistent to the findings of other empirical studies conducted by (Shahramnia et al., 2017), (Abdollahyan & Kermani, 2015), (Malekan et al., 2013), and (Calenda & Mosca, 2007).

The findings of this study showed that Virtual space such as the Internet actually has a significant impact on communication costs, information access and democratic participation. It has revolutionized the way people communicate, access information and participate in the political process. The Internet has significantly reduced the cost of communication, making it more accessible and affordable for people around the world. Traditional communication methods such as phone calls and postal mail are often more expensive compared to online communication platforms such as email, instant messaging and social media. This reduction in communication costs has facilitated global connectivity and allowed individuals to communicate with others regardless of geographical boundaries. (Malekan et al., 2013) in their study showed that individuals who frequently engage in recreational activities such as internet games, movies, and chatting may have lower political awareness and engage in fewer political discussions compared to those who do not engage in such activities Online platforms provide individuals with the opportunity to express their opinions, participate in discussions and mobilize around social and political causes.

As major political actors, the media play a guiding and strategic role in shaping the thoughts and political goals of societies. They have the power to influence public opinion and shape political discourse. Media serve as essential communication channels, serve to convey information and raise awareness among individuals. They have become the most important sources of information in all countries. Empirical studies have shown that media plays a significant role in promoting individuals' political participation. They raise awareness of political issues and encourage citizens to get involved politically (Shahramnia et al., 2017). Media serve as architects of public discourse within society as tools through which individuals can obtain necessary information. In other words, they are means of conveying messages from groups and political entities to citizens. From this perspective, groups and political leaders seek to increase their influence on public opinion through access to mass media. Their goal is to communicate their programs and goals to the public and provide the necessary platforms to increase people's participation in a democratic way. Overall, it can be argued that the media is the most effective platform and medium to transform and stimulate people's commitment to political participation.

There are some limitations in every research study that can have a significant impact on the results. Therefore, researchers must acknowledge and address these limitations in order to conduct their

studies in their respective fields with greater accuracy and precision. Below are some of the factors that researchers need to consider: Conducting any research requires the availability of both tangible and intangible resources. This includes gathering information and accessing relevant organizations associated with the research topic to obtain accurate, unbiased and reliable information. The availability of these resources is undoubtedly critical to maintaining the scientific integrity of research. However, researchers may face challenges such as administrative bureaucracy, the workload of certain officials, and the specificity of some graduation topics, which may affect their ability to obtain comprehensive information from these organizations and institutions.

To address limitations on online news and social media, several suggestions have been proposed. These proposals aim to address issues such as the spread of fake news and misinformation, the balance between user privacy and platform transparency, the lack of regulation for social media companies, the lack of competition and the contribution of algorithms to bias, racism and polarization, the need to overhaul social media business models, and the unclear line between free and harmful expression. In addition to these suggestions, it is also important to focus on education and media literacy to empower users to use social media responsibly. Providing education on appropriate behavior and media literacy can help individuals, especially young people, adopt responsible social media practices. Further research is needed to understand the various impacts of social media on users' lives, including their impact on mental and psychological well-being.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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