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The Impact of College Students' Attention to Green Buildings on Their Attitudes on Social Media

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ABSTRACT

Along with the growing consciousness of protecting environment, more and more attention has been paid to the problem of resource depletion and environment stress. Because of the constraints of conventional architecture techniques on energy use and environment protection, Green Architecture has become a new tendency for architecture because of its energy saving, environment protection and efficiency. In this paper, we investigate the influence of social media attention, information refining, and knowledge on university students' attitudes toward green architecture. Based on the investigation of 400 undergraduates, we discovered that there is a positive correlation between the concern for the Green Architecture and the knowledge of the Green Building.

KEYWORDS

Cognitive Mediation Model; Green Building; College Student; Social Media.

1. INTRODUCTION

Firstly, this article will provide a brief introduction to the concept, characteristics, and current development status of green buildings on a global scale, elucidating the importance and contemporary value of green buildings. Next, this article will analyze the activity characteristics of college students on social media regarding green building related information, as well as how social media serves as a tool for disseminating green building related information and shaping concepts. On this basis, this article will explore the attention of college students to green buildings on social media through empirical research, and how this attention affects their attitudes and behaviors towards green buildings.

2. LITERATURE REVIEW

2.1. Green Buildings

Green buildings are high-quality buildings developed for the purposes of environmental protection, energy conservation, and symbiosis between humans and nature, compared to traditional buildings[1]. Green buildings need to follow five evaluation indicators, namely: safety and durability, health and comfort, convenience of life, resource conservation, and livable environment. Generally, single buildings or building groups are evaluated with high evaluation standards, which is the future development direction of the construction industry[2].

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2.2. Characteristics of Activities of College Students on Social Media Regarding Green Building Related Information

The research results indicate that the learning and living environment of college students have a significant impact on their behavior[3]. As internet natives, college students often rely on social platforms for their environmental activities, engaging in highly interactive activities through gaming and video platforms. For example, Ant Forest allows college students to participate in environmental protection through interactive methods such as "stealing friend energy". College students use technologies such as AI and AR, combined with IP imagery and short video new media, to gain a concrete understanding of the emergence and solutions to environmental problems. The combination of this technology and content has enhanced their awareness and interest in environmental issues such as green buildings[4].

2.3. How Social Media Can Be Used to Spread Information and Create Green Architecture Ideas

Social media can serve as a value co creation platform, encouraging and motivating people to adopt sustainable green lifestyles. Exposure to social media can have a positive impact on the uptake of sustainable and green lifestyles[4]. The study shows that the information application of the social media can improve the environment care and awareness of the environment, so as to improve the private environment[5]. As an integration of architectural, urban, digital, and artistic disciplines, Media Architecture is shaping the city and the way we live. Media architecture is a dynamic and responsive way to city life by means of external walls, smart phones, and social media[6].

2.4. Cognitive Mediation Model

The Cognitive Mediation Model (CMM) was introduced in 2001 by Eveland. The model shows that all kinds of motives motivate people to care about and deal with them positively, while the latter can influence how much they gain from the media by means of either directly obtaining it or by indirectly obtaining it [7]. It consists of the motive, the focus of the media, the refinement of the information, and the knowledge. Among these motives are control satisfaction, expectation of interaction, leadership, and cognitive needs [7]. Media attention is an individual's choice of focus and focus on outside stimulation. Careful handling is the process of linking up new messages with other data that are stored in memory, such as prior knowledge, individual experience, or the process of linking up two new messages in a different manner[7]. Knowledge means that the person obtains or uses the knowledge, or the processing of the information, is the basic mental course of man. (2) See Fig. 1 for the former CMM.

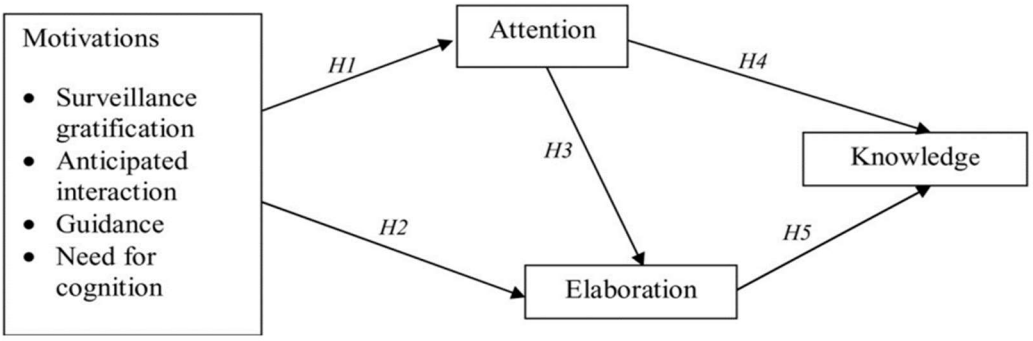

Fig. 1 Cognitive mediation model

Much work has been done to verify and extend the cognitive mediation model in various areas. Most research focuses on psychology, journalism and media, sociology, and other fields. But there has been little research into social media as a place to spread sustainability and environmental knowledge[4]. The purpose of this research is to investigate the effect of cognitive mediation on improving university students' comprehension of green architecture. The resulting model is illustrated in Fig. 2.

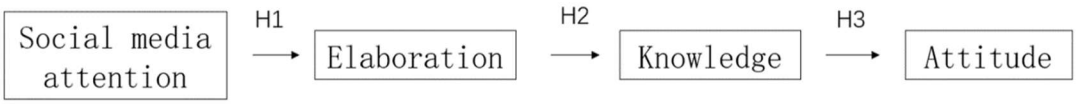

Fig. 2 Cognitive mediation model

H1: There is a positive correlation between the interest of the university students and the quality of the information processing.

H2: There was a positive correlation between the degree of sophisticated treatment of the information about the green architecture and the cognitive level of the university students.

H3: There is a positive correlation between university students' consciousness and their attitude towards green architecture.

3. RESEARCH METHODS

The study model was analysed by means of regression, and SPSS was applied to analyse the data. It can be applied to many kinds of analytical tools, including data input, organizing, analyzing, and so on.

Table 1. Basic indicators

name	Sample size	minimum value	Maximum value	The average value	Standard deviation	Median
Follow on social media	four hundred and one	one	five	three point three eight one	one point two nine six	four
Fine processing of information	four hundred and one	one	five	three point four four nine	one point two seven seven	four
cognition	four hundred and one	one	five	three point four seven five	one point two eight five	four point three three three
attitude	four hundred and one	one	five	three point four nine three	one point three zero two	four point three three three

Give a description of the general state of the data by average or median. It is clear from the chart above that there is no abnormal point in the present data.

Table 2. Cronbach's reliability analysis

name	Total Correlation of Correction Items (CITC)	Item deleted alpha coefficient	Cronbach alpha coefficient
2. I understand the concept of 'green building'	zero point six zero six	zero point eight nine two	zero point nine zero zero
3. I would like to know about information related to green buildings	zero point five eight one	zero point eight nine three	
4. I often follow information about green buildings on social media	zero point five eight four	zero point eight nine three	
5. After learning about green building information on social media, I will think about it	zero point six one six	zero point eight nine two	
6. After learning about green building information on social media, I will want to delve deeper into more related information	zero point six one three	zero point eight nine two	
7. After learning about green building information on social media, I will recall the relevant knowledge I already have	zero point six zero six	zero point eight nine two	
8. I am familiar with the building materials used in green buildings	zero point six three nine	zero point eight nine zero	
9. I understand the application of digital technology in green buildings	zero point six one four	zero point eight nine two	
10. I understand the energy-saving and emission reduction advantages of green buildings	zero point six zero five	zero point eight nine two	
11. I am willing to purchase or rent green building housing in the future	zero point six three four	zero point eight nine one	
12. I am willing to choose green buildings as venues for my studies or work	zero point six five eight	zero point eight eight nine	
13. I will recommend green homes to my family and friends	zero point six five five	zero point eight nine zero	
Note: The standardized Cronbach alpha coefficient is 0.900			

The results show that the confidence factor of 0. 900 is more than 0.8, which shows that the results of this study are of good reliability. As for the "Alpha Factor with Deletion", there is no obvious rise in the Confidence Factor when no entry is removed, which suggests that the project cannot be removed.

As for CITC, CITC values for analytical projects were all above 0.4, which showed that there was a good relationship among the analytical projects and that there was also a high degree of confidence. All in all, the reliability factor of this study was above 0.8, which showed that this data was reliable enough to be analyzed.

Using KMO and Bartlett Test to verify the validity of the results, we can find that KMO is 0.859 and KMO is higher than 0.8, which shows that the study data are well suited to extraction of information (which shows a good efficiency indirectly).

Table 3. KMO and Bartlett's test

KMO value		zero point eight five nine
Bartlett sphericity test	Approximate chi square	three thousand seven hundred and twenty-seven point one two eight
	df	sixty-six
	P-value	zero

Table 4. Spearman Related - Standard Format

	Follow on social media
Fine processing of information	0.303**
* p<0.05 ** p<0.01	

We can find out from the graph that the correlative analysis is applied in the research on the relation of the SNS and the IR, and the Spearman correlation coefficient is applied to express the intensity of the relationship. It was found that the correlation coefficient was 0 303, which was 0. 303, which suggested that H1 SNS was positively correlated with the information refining treatment.

Table 5. Spearman Related - Standard Format

	Fine processing of information
cognition	0.321**
* p<0.05 ** p<0.01	

It can be found from the chart that the relation of information refining treatment and knowledge is researched by correlative analysis, and Spearman's correlation coefficient is applied to indicate the intensity of the relationship. It was found that the correlation factor of information refining treatment was 0. 321, and it was significant at 0.01.

A significantly positive relationship was found between H2 and cognitive ability.

Table 6. Spearman Related - Standard Format

	cognition
attitude	0.357**
* p<0.05 ** p<0.01	

The results show that the relationship between cognitive and attitude is analyzed by correlative analysis, and Spearman's correlation coefficient is used to express the relationship. It was found that the relationship between cognitive ability and attitude was 0. 357, which was 0. 01, which suggested that H3 knowledge was positively correlated with attitude.

Table 7. Linear regression analysis results (n=401)

	Non standardized coefficient		Standardization coefficient	t	p	Collinearity diagnosis	
	B	Standard Error	Beta			VIF	Tolerance
constant	two point zero nine one	zero point one six six	-	twelve point six one seven	0.000**	-	-
Follow on social media	zero point four one five	zero point zero four six	zero point four one three	nine point zero five four	0.000**	one	one
R 2	zero point two seven zero						
Adjust R 2	zero point two six eight						
F	F 21,3992=81.971,p=0.000						
D-2 value	one point two five one						
Note: Dependent variable=attitude							
* 2<0.052** p<0.01							

Based on the graph, we can find that the following equation is derived from the following equation: Attitude = 2.091 + 0.415 * Social Media Concern. The R squared is 0.170, indicating that the amount of interest in social media accounts for 17.0 per cent of the causes of the change in attitude. In the F-test of this model, it was discovered that this model had successfully passed the F test (f = 81.971, P = 0.000 < 0.05). Finally, it was found that the regression factor was 0. 415 (t = 9. 054, P = 0.000 < 0. 01).

Overall analysis indicates that the influence of social media is positively related to attitudes.

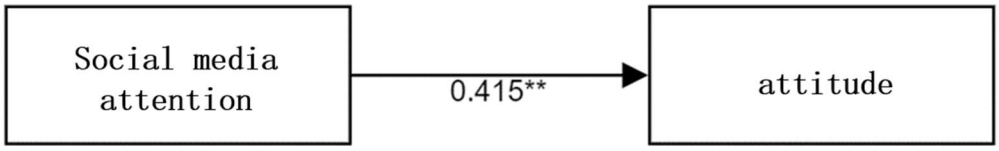

Fig. 3 Regression Model Diagram

4. CONCLUSION

Although social media plays an important role in enhancing college students' awareness and interest in environmental issues such as green buildings, it is also important to pay attention to its potential negative impacts. Overreliance on social media may lead to psychological and behavioral problems, such as social dependence, social burnout, and emotional imbalance. Through in-depth analysis of college students' social media usage behavior and attitudes towards green building, this study aims to reveal the potential role of social media in shaping college students' environmental awareness and promoting the development of green buildings, providing scientific basis for relevant policy formulation and educational practice.

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